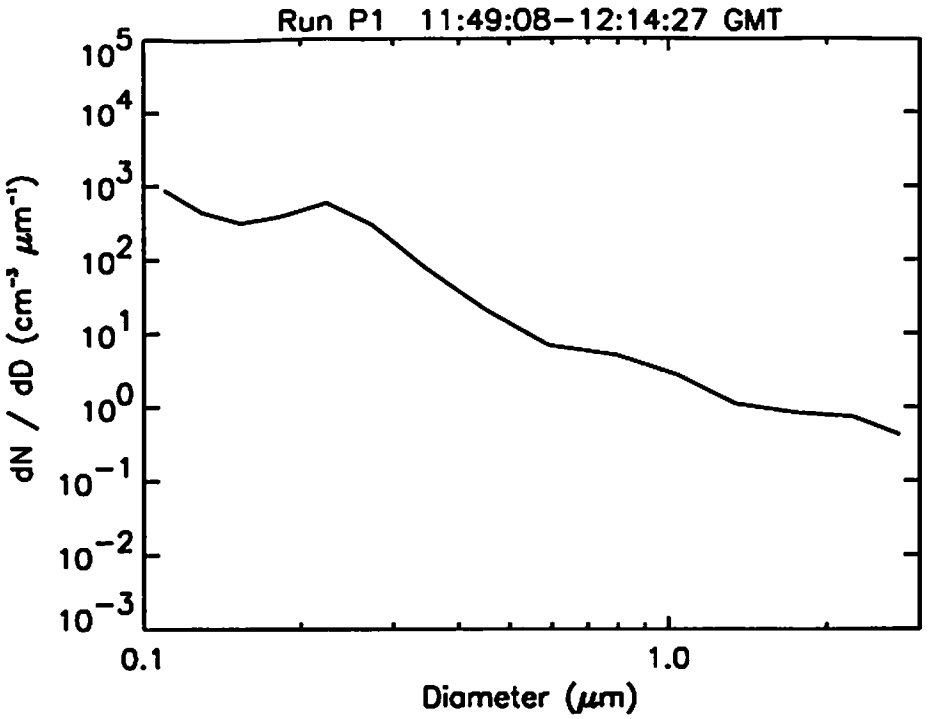
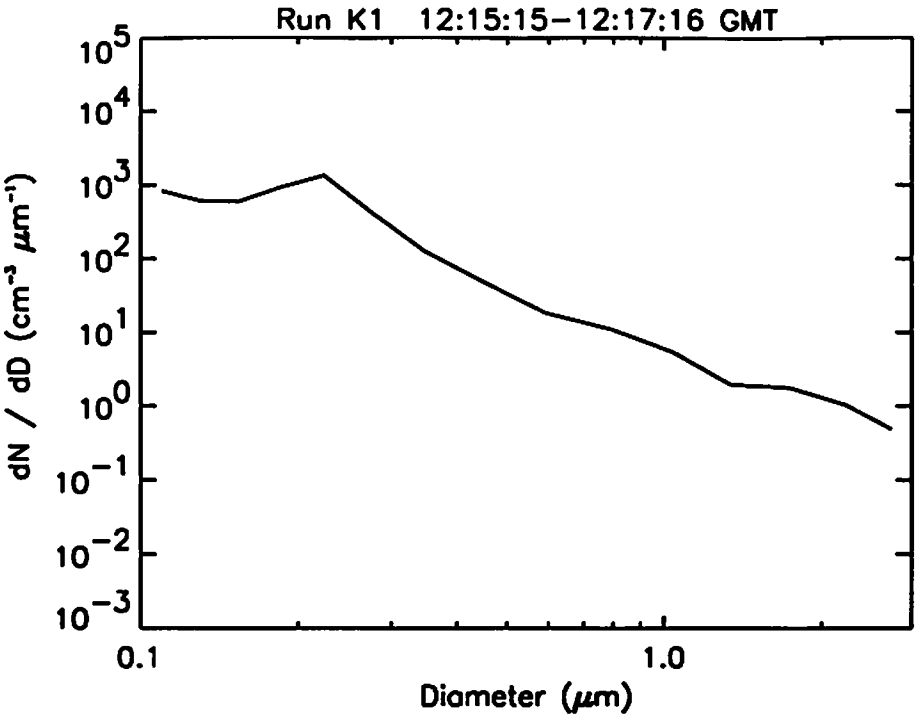
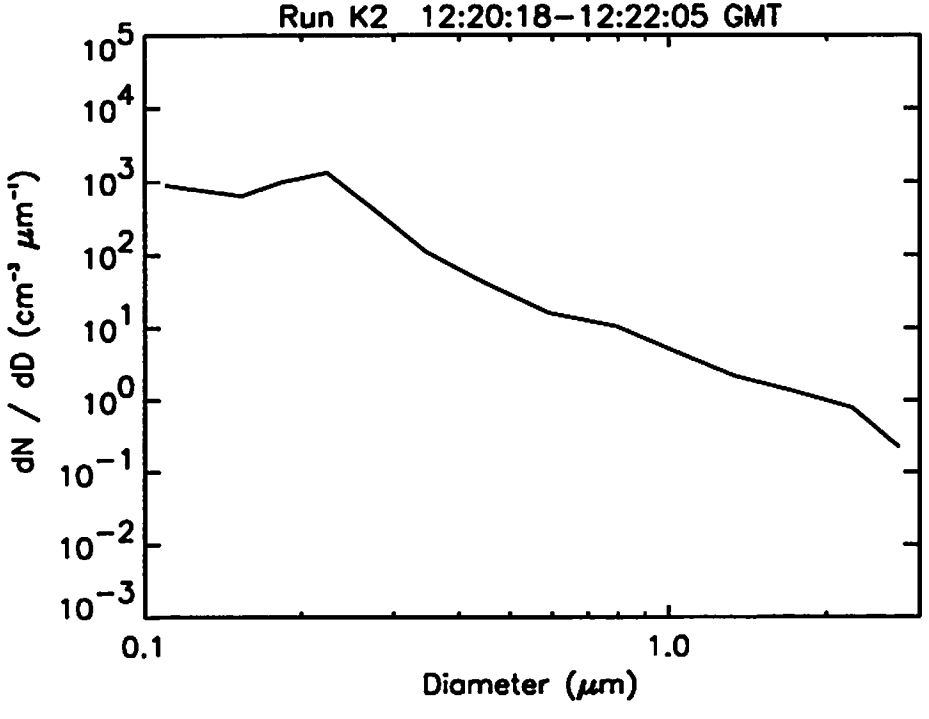
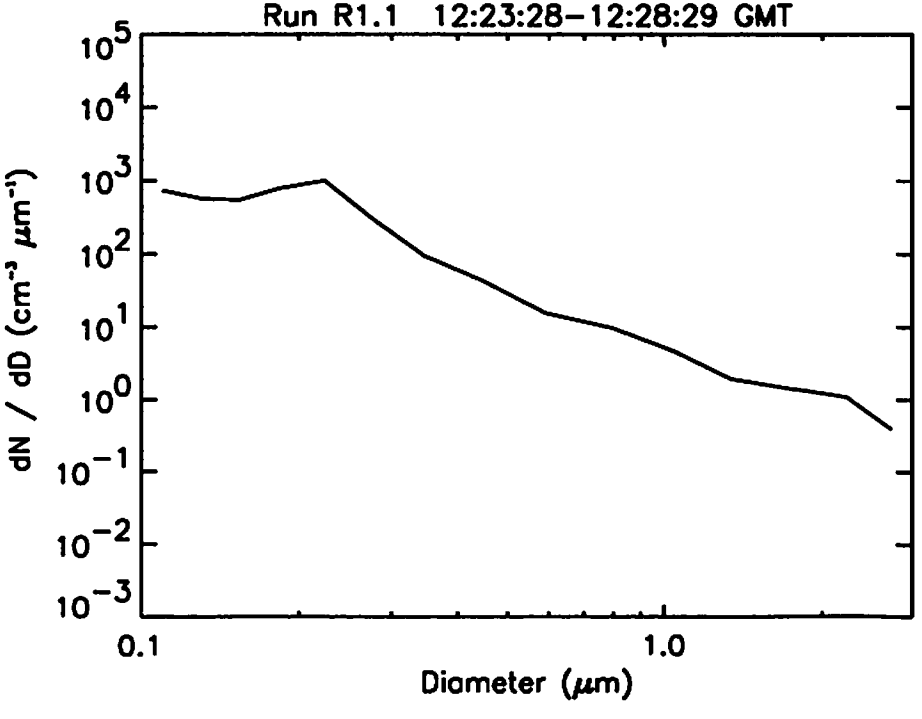
A309

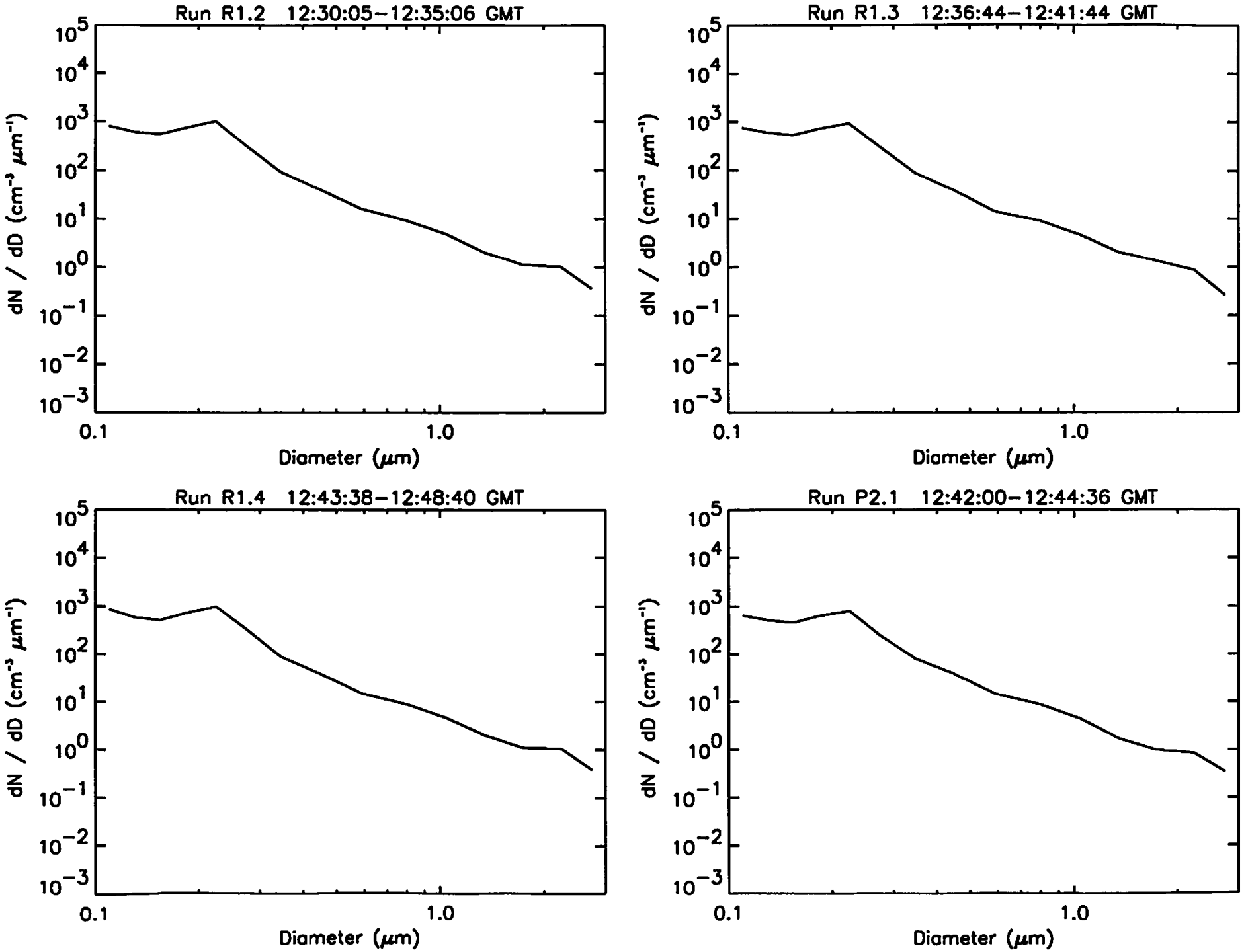
21 JAN 94

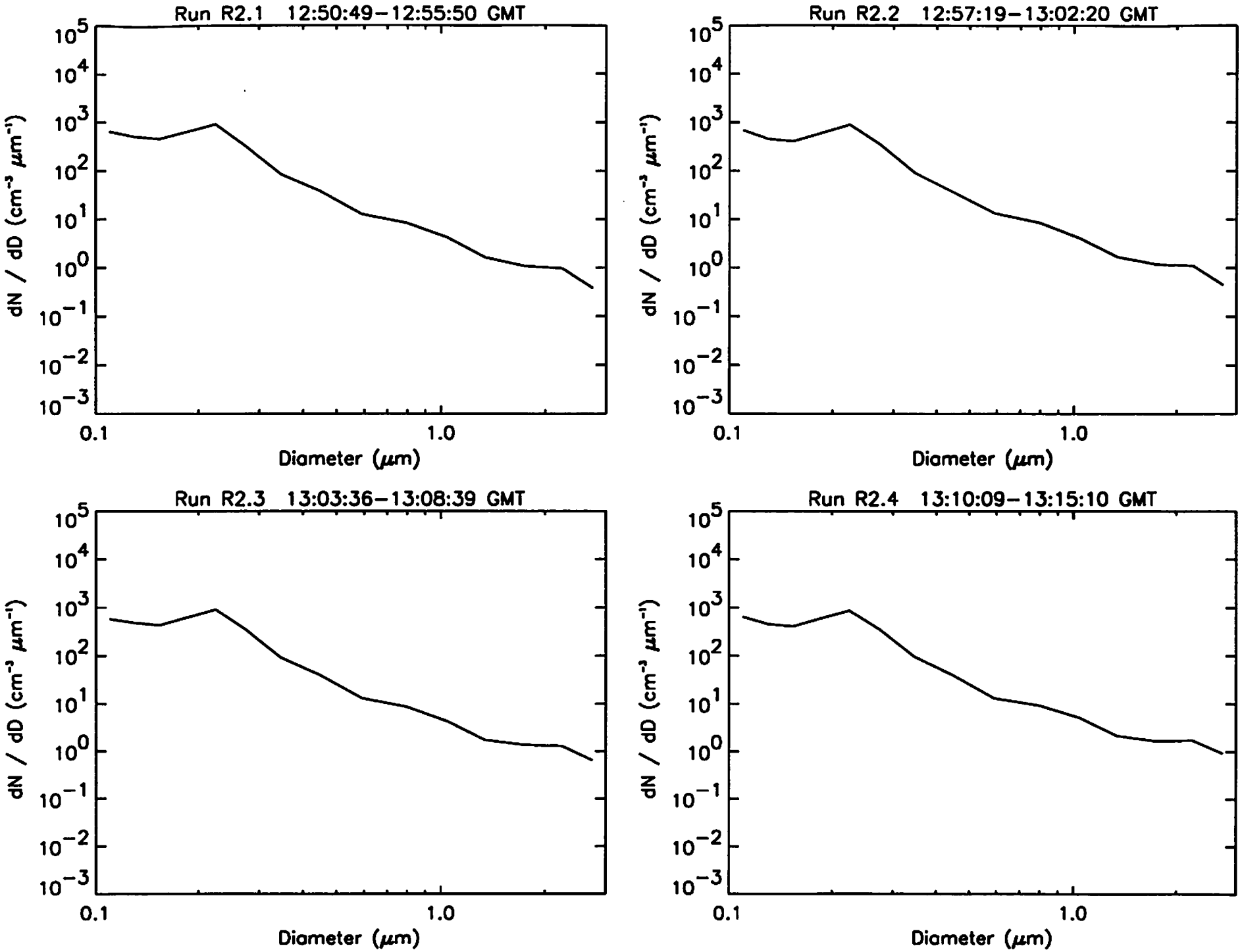

Run P1 11:49:08–12:14:27 GMT
dN / dD (cm⁻³ μm⁻¹)
Diameter (μm)
0.1
1.0

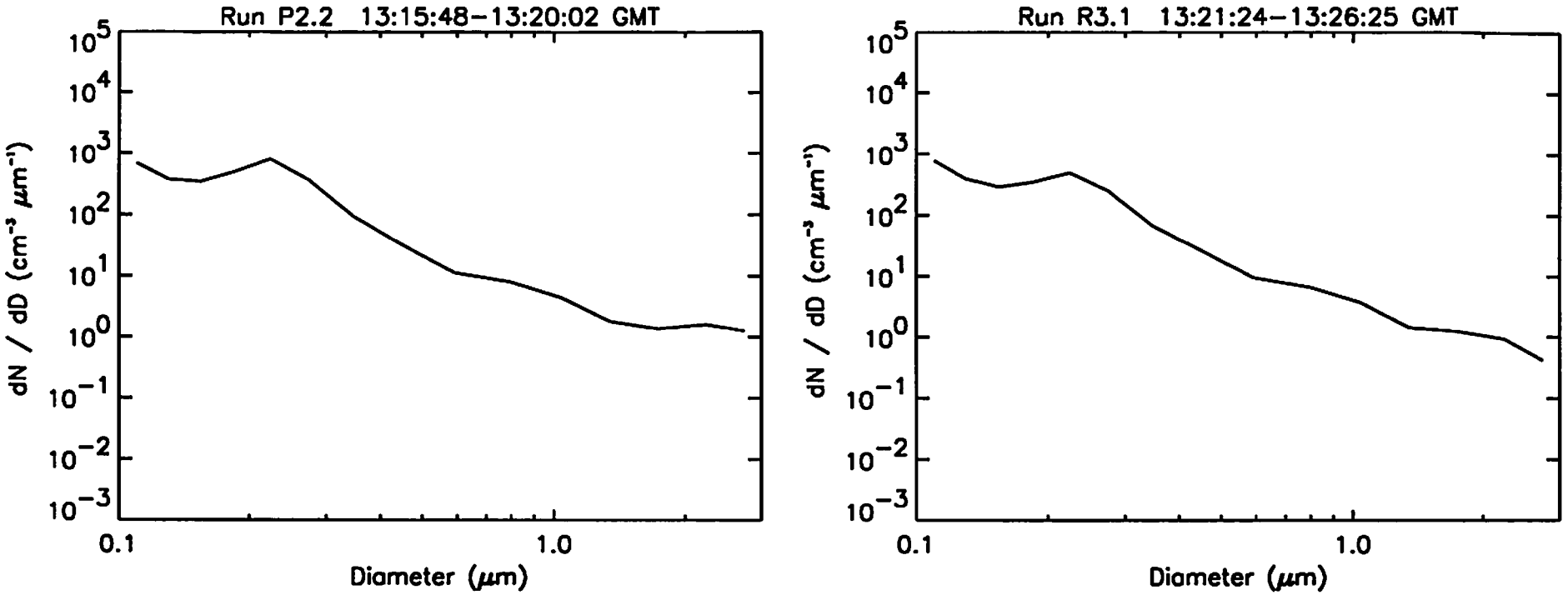

Run K1 12:15:15–12:17:16 GMT
dN / dD (cm⁻³ μm⁻¹)
Diameter (μm)
0.1
1.0


Run K2 12:20:18–12:22:05 GMT
dN / dD (cm⁻³ μm⁻¹)
Diameter (μm)
0.1
1.0

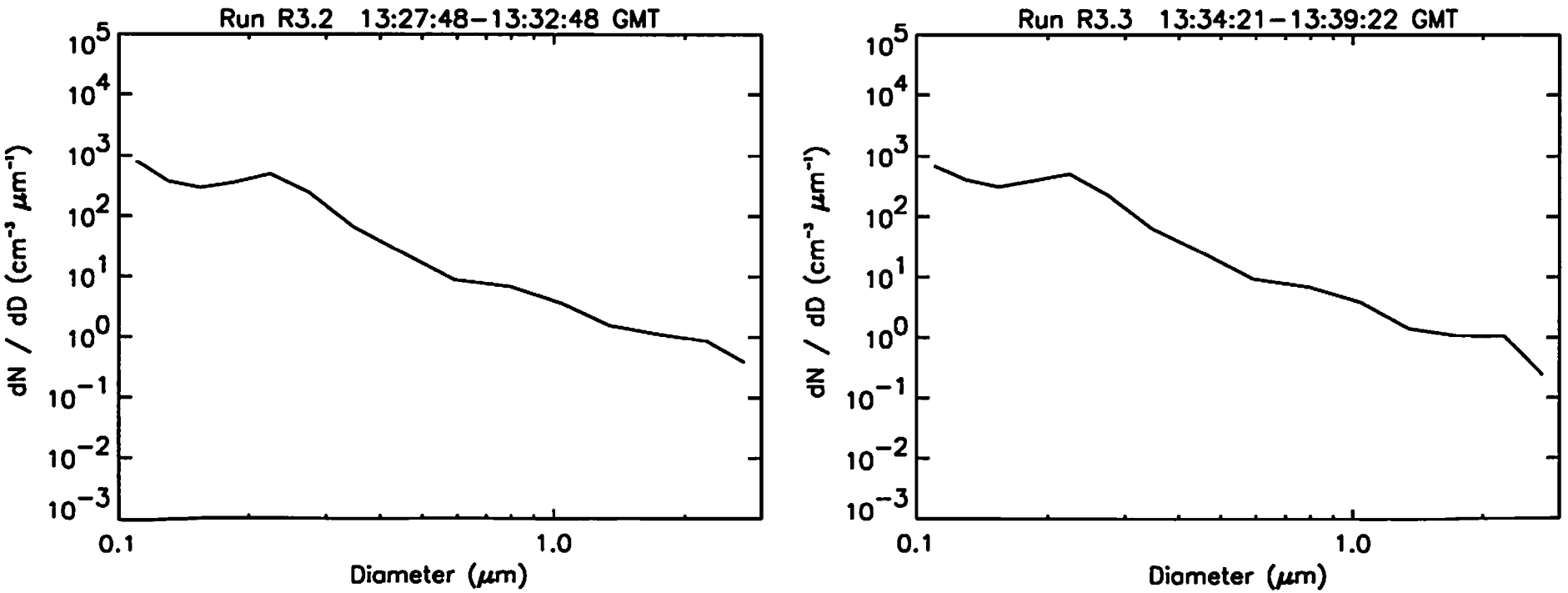

Run R1.1 12:23:28–12:28:29 GMT
dN / dD (cm⁻³ μm⁻¹)
Diameter (μm)
0.1
1.0


Run R1.2 12:30:05–12:35:06 GMT
Run R1.3 12:36:44–12:41:44 GMT
Run R1.4 12:43:38–12:48:40 GMT
Run P2.1 12:42:00–12:44:36 GMT
dN / dD (cm⁻³ μm⁻¹)
Diameter (μm)
0.1
1.0
10⁵
10⁴
10³
10²
10¹
10⁰
10⁻¹
10⁻²
10⁻³

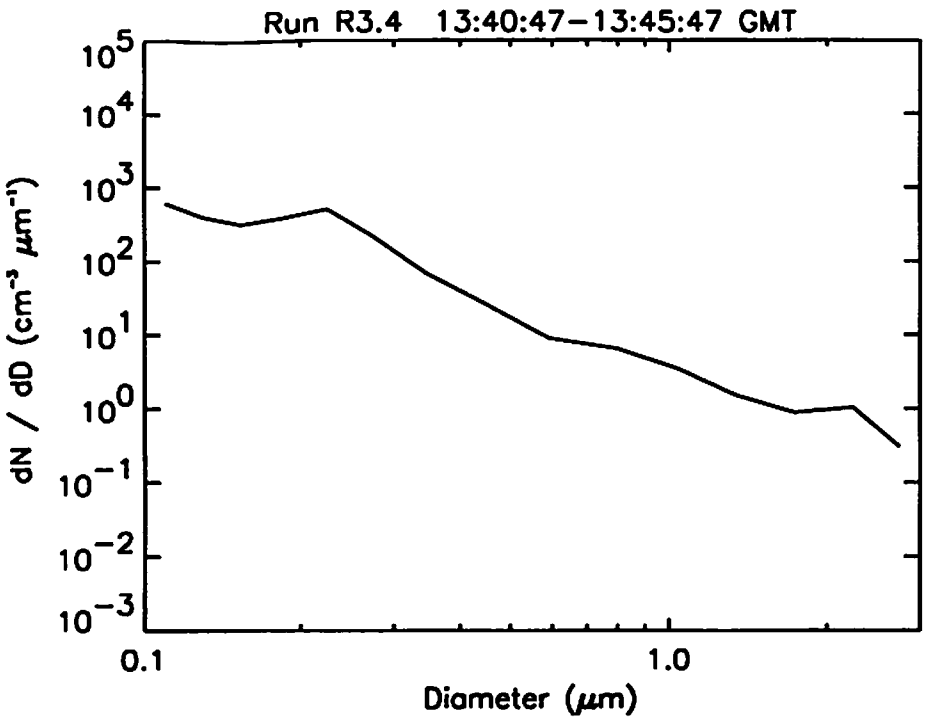

Run R2.1 12:50:49–12:55:50 GMT
Run R2.2 12:57:19–13:02:20 GMT
Run R2.3 13:03:36–13:08:39 GMT
Run R2.4 13:10:09–13:15:10 GMT
dN / dD (cm⁻³ μm⁻¹)
Diameter (μm)
0.1
1.0
10⁵
10⁴
10³
10²
10¹
10⁰
10⁻¹
10⁻²
10⁻³

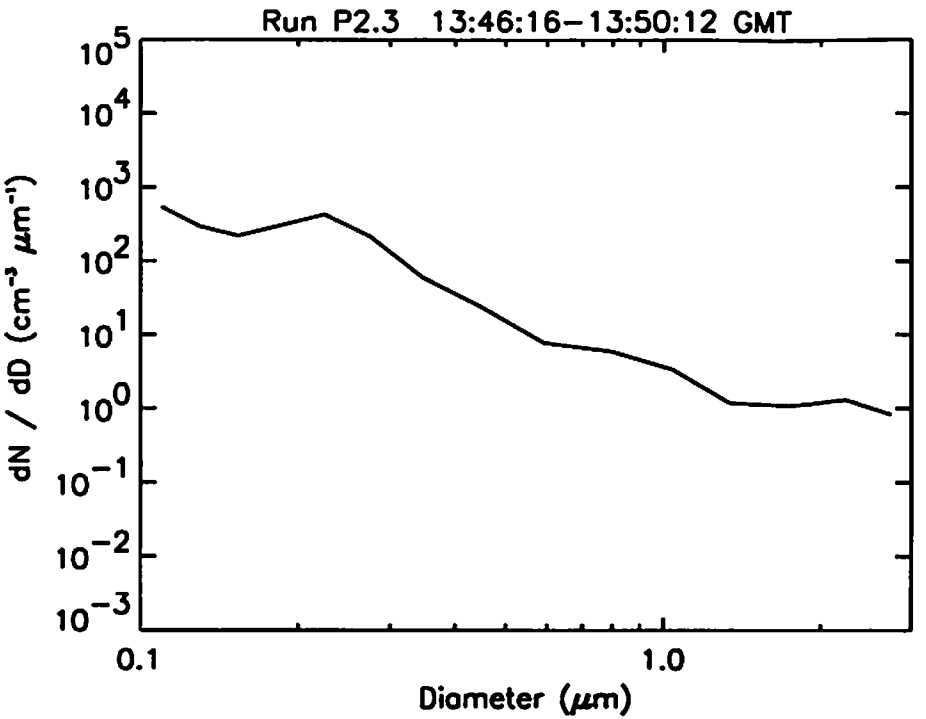

Run P2.2 13:15:48–13:20:02 GMT
dN / dD (cm⁻³ μm⁻¹)
Diameter (μm)
0.1
1.0

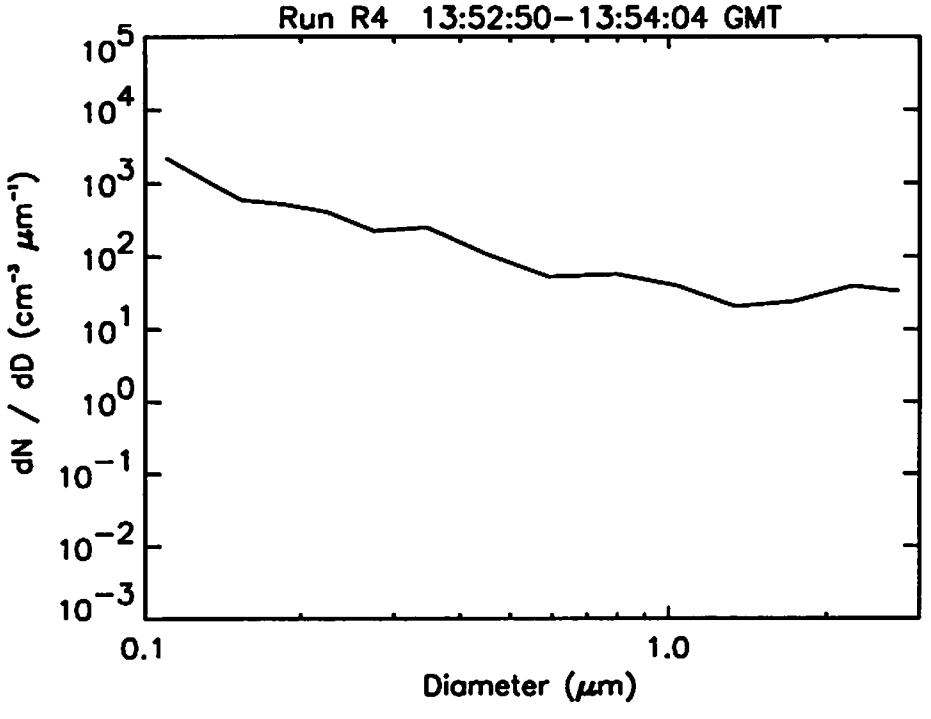
Run R3.1 13:21:24–13:26:25 GMT
dN / dD (cm⁻³ μm⁻¹)
Diameter (μm)
0.1
1.0

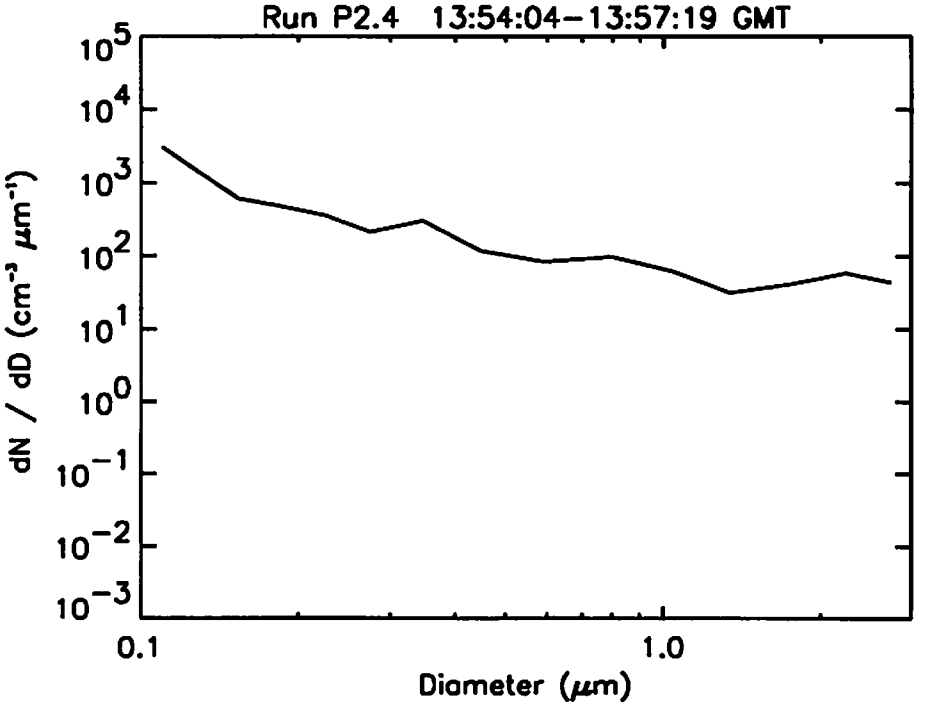

Run R3.2 13:27:48–13:32:48 GMT
dN / dD (cm⁻³ μm⁻¹)
Diameter (μm)
0.1
1.0

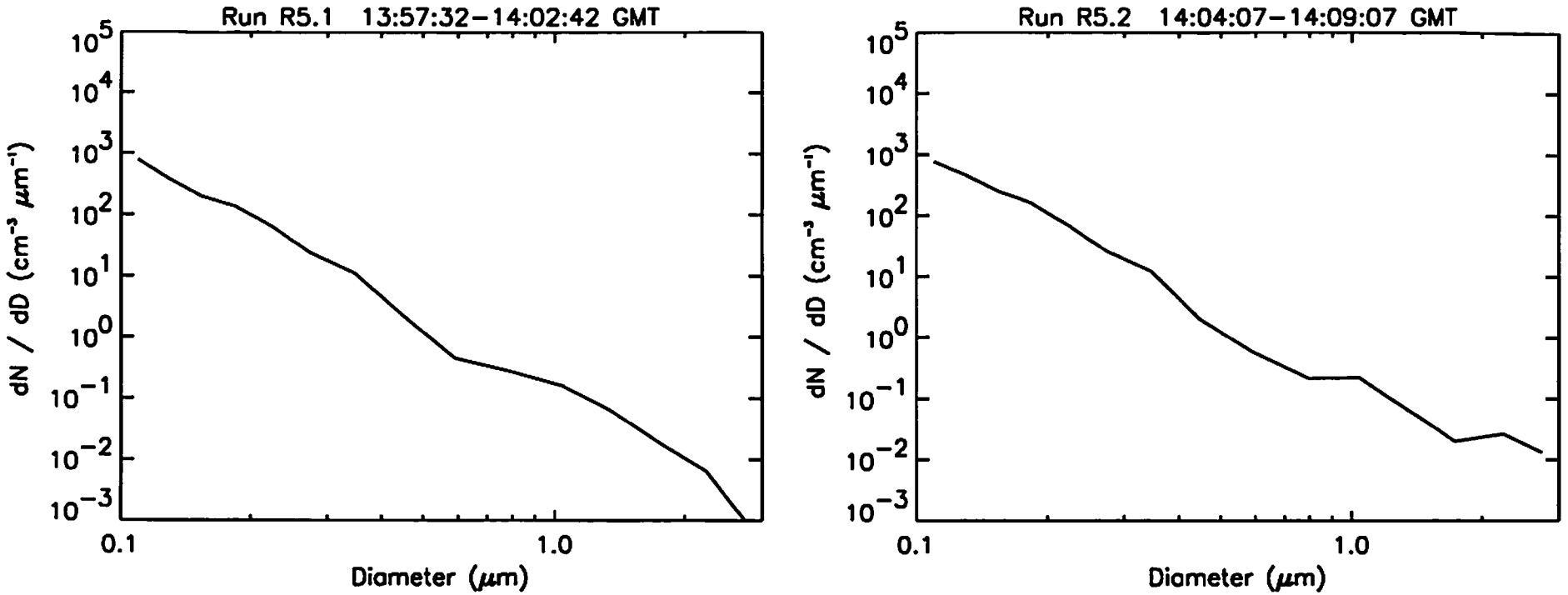
Run R3.3 13:34:21–13:39:22 GMT
dN / dD (cm⁻³ μm⁻¹)
Diameter (μm)
0.1
1.0


Run R3.4 13:40:47–13:45:47 GMT
dN / dD (cm⁻³ μm⁻¹)
Diameter (μm)
0.1
1.0

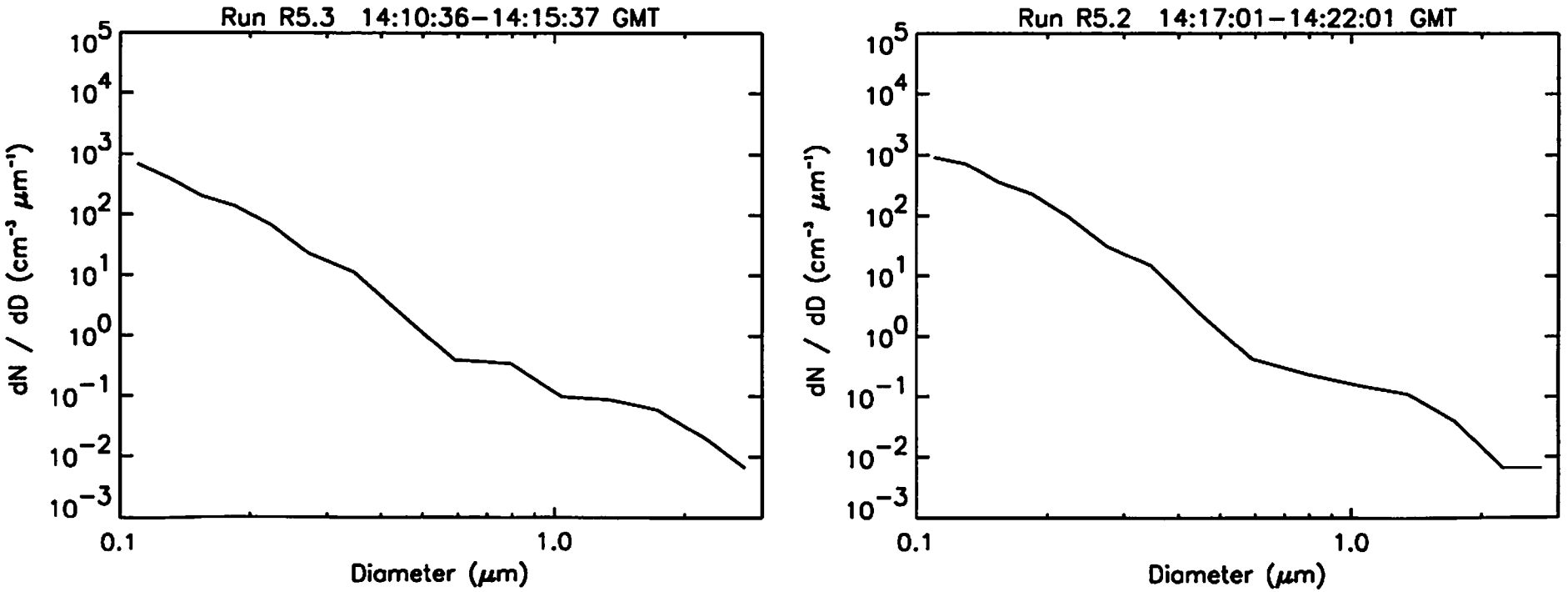

Run P2.3 13:46:16–13:50:12 GMT
dN / dD (cm⁻³ μm⁻¹)
Diameter (μm)
0.1
1.0


Run R4 13:52:50–13:54:04 GMT
dN / dD (cm⁻³ μm⁻¹)
Diameter (μm)
0.1
1.0

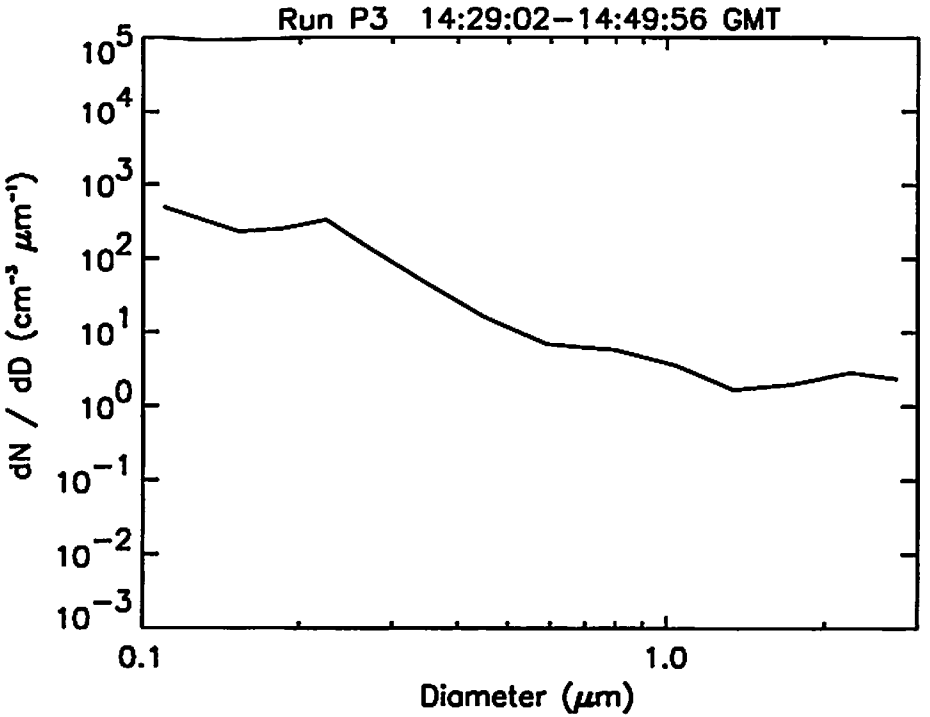

Run P2.4 13:54:04–13:57:19 GMT
dN / dD (cm⁻³ μm⁻¹)
Diameter (μm)
0.1
1.0

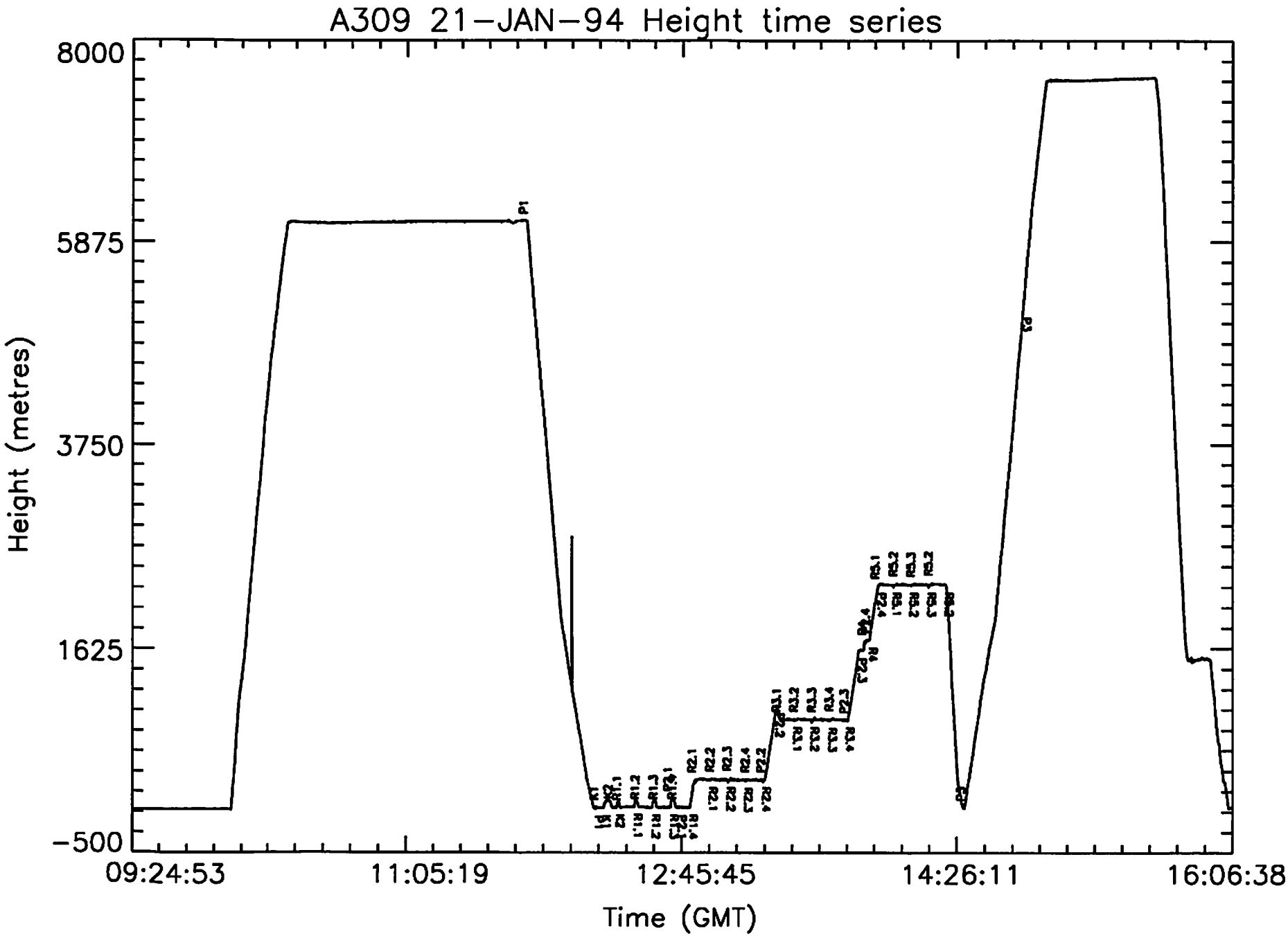

Run R5.1 13:57:32–14:02:42 GMT
dN / dD (cm⁻³ μm⁻¹)
Diameter (μm)
0.1
1.0

Run R5.2 14:04:07–14:09:07 GMT
dN / dD (cm⁻³ μm⁻¹)
Diameter (μm)
0.1
1.0

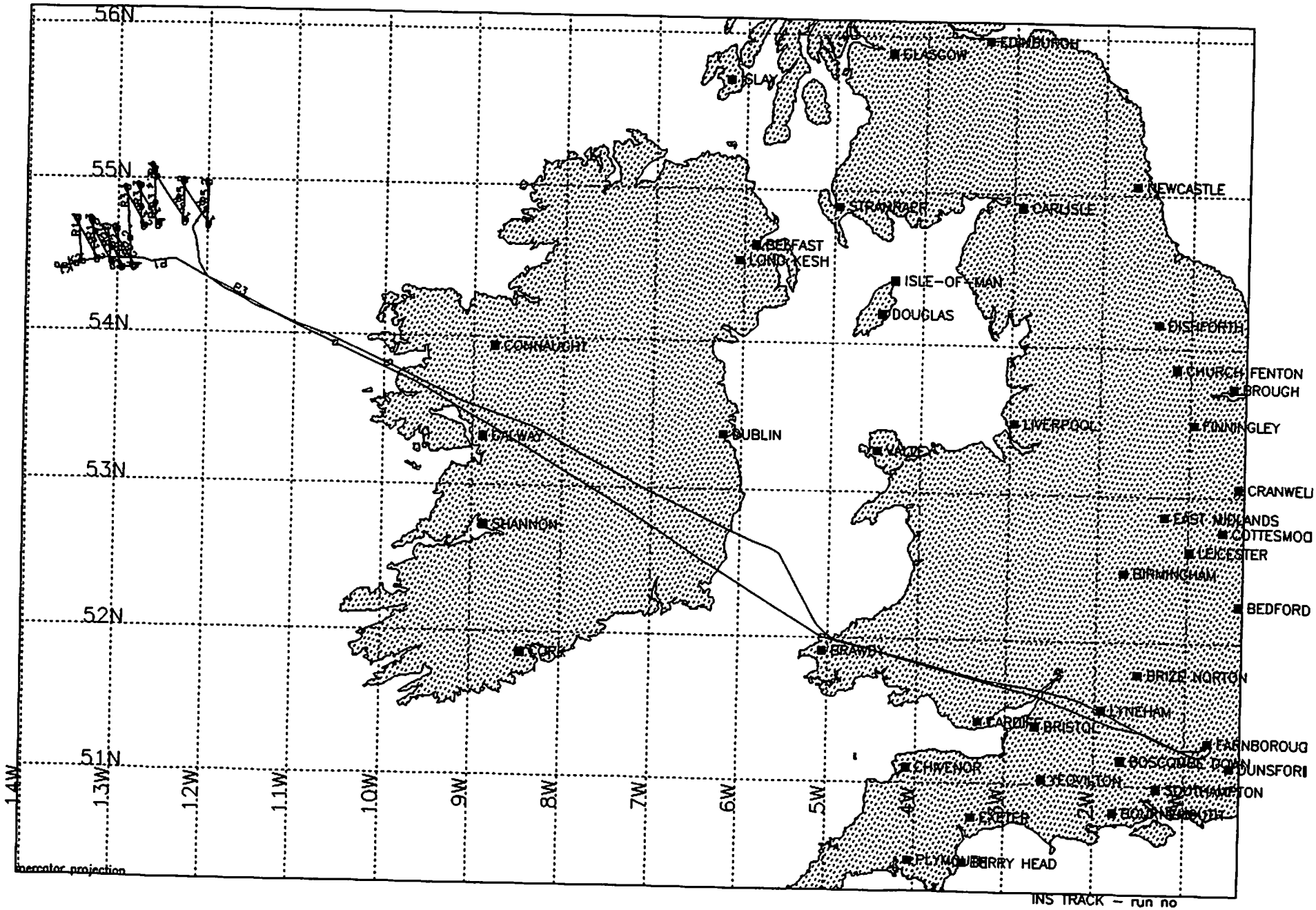

Run R5.3 14:10:36–14:15:37 GMT
dN / dD (cm⁻³ μm⁻¹)
Diameter (μm)
0.1
1.0

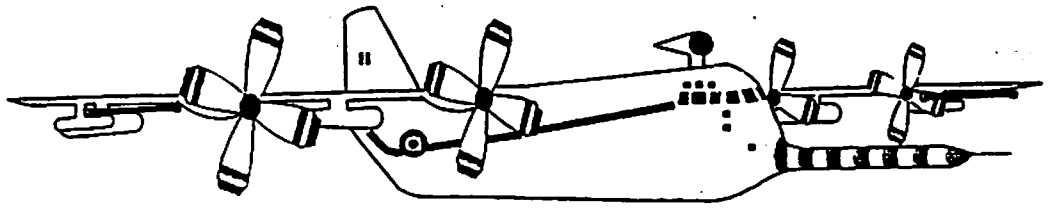
Run R5.2 14:17:01–14:22:01 GMT
dN / dD (cm⁻³ μm⁻¹)
Diameter (μm)
0.1
1.0


Run P3 14:29:02–14:49:56 GMT
dN / dD (cm⁻³ μm⁻¹)
10⁵
10⁴
10³
10²
10¹
10⁰
10⁻¹
10⁻²
10⁻³
0.1
1.0
Diameter (μm)


A309 21-JAN-94 Height time series
8000
5875
3750
1625
-500
Height (metres)
09:24:53
11:05:19
12:45:45
14:26:11
16:06:38
Time (GMT)

A309 21-JAN-94





FLIGHT FOLDER

DATE : 21 / 1 / 94 **TAKE OFF** 1001 **H (local time)** **FLIGHT NO.** A309
LANDING 1605

105:12

PROJECT OFFICER :
AIRCRAFT SCIENTIST: A. KAYE
FLIGHT LEADER: M. SMITH
OBSERVER: CLOUD PHYS: A. McHAFFIE
OTHERS:
FILTERS / CCN: D. LAUCHLAN
VACC: C. O'DOWD
~~PHOTOGS: D. LORAINE~~

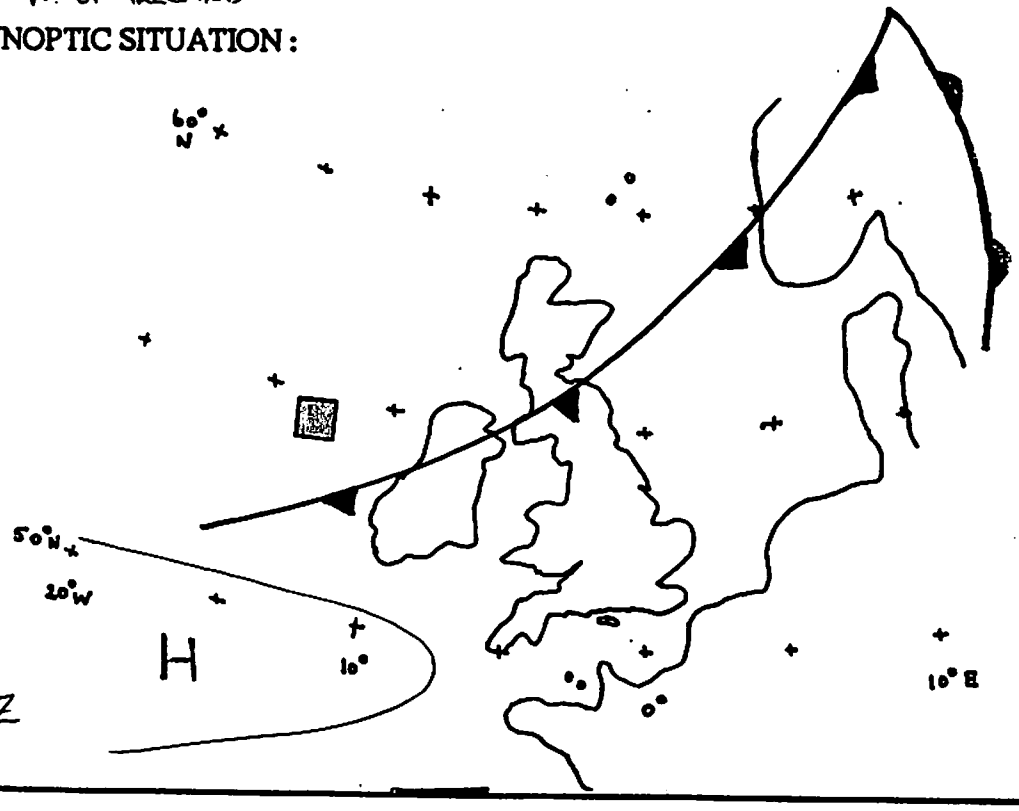
(A22) A. KNIGHT, S. ELVERY

CAPTAIN: H. BURGOYNE
CO-PILOT: G. DALMEGE
NAVIGATOR: E. HEATON
ENGINEER: R. PRICE
LOADMASTER: K. QUICK

TRIALS INSTRUCTION (s) :
OPERATING AREA:

W. OF IRELAND

GENERAL SYNOPTIC SITUATION :



TIME : 12Z

A309 21st January, 1994

Start TIME (EM)	End TIME (EM)		HEIGHT	HDG
100108		Take off from FARNBOROUGH		
114908(3)	-121427(5)	Profile P1	FL200-> 70ft	270 deg
121515(6)	-121716(7)	K-GAMMA Run 1	100ft	270 deg
122018(9)	-122205(10)	K-GAMMA Run 2	100ft	090 deg
122328(12)	-122829(13)	Run 1.1	100ft	360 deg
123005(14)	-123506(15)	Run 1.2	100ft	170 deg
123644(16)	-124144(17)	Run 1.3	100ft	360 deg
124338(18)	-124840(19)	Run 1.4	100ft	170 deg
124200(21)	-124436(23)	Profile P2.1	100ft->1000ft	turning
125049(21)	-125550(22)	Run 2.1	1000ft	360 deg
125719(23)	-130220(24)	Run 2.2	1000ft	170 deg
130336(25)	-130839(26)	Run 2.3	1000ft	360 deg
131009(27)	-131510(31)	Run 2.4	1000ft	170 deg
131548(32)	-132002(33)	Profile P2.2	1000ft->3500ft	turning
132124(34)	-132625(35)	Run 3.1	3100ft	360 deg
132748(36)	-133248(37)	Run 3.2	3100ft	170 deg
133421(38)	-133922(39)	Run 3.3	3100ft	360 deg
134047(40)	-134547(42)	Run 3.4	3100ft	170 deg
134616(43)	-135012(44)	Profile P2.3	3100ft->5800ft	turning
135250(46)	-135404(47)	Run 4	5800ft	360 deg
135404(47)	-135719(48)	Profile P2.4	5800ft->7700ft	turning
135732(49)	-140242(51)	Run 5.1	7700ft	170 deg
140407(52)	-140907(53)	Run 5.2	7700ft	360 deg
141036(54)	-141537(55)	Run 5.3	7700ft	170 deg
141701(56)	-142201(57)	Run 5.2	7700ft	360 deg
142902(58)	-144956(63)	Profile P3	60ft->FL170	turning
160516		Land at FARNBOROUGH		

A309

21 January 1994

Aircraft Scientists summary

Synoptic Conditions:

It was decided to fly to the West of Ireland to study the Aerosol in the high wind region behind a series of fronst which were approaching the British coast.

Flight Summary:

This flight was a succesful VACC flight with no major instrument problems effectively a duplicate of yesturdays flight.

SORTIE BRIEF: 21 JANUARY 1994

Variation of Aerosol Composition and Concentration
VACC

1) SORTIE OBJECTIVE: To determine the vertical structure of sea-salt and non-sea-salt sulphate aerosol in a clean marine boundary layer.

2) LOCATION: Northeast Atlantic, 53-54N 11-20W. The sortie will be conducted directly up-wind of (and in the same air mass as) the Mace Head ground based research station.

3) WEATHER: Non-precipitating, moderate to high wind region in the anti-cyclonic system edging northwards in the N. Atlantic. Air trajectory must be purely maritime. Forcast suggests polar maritime.

4) FLIGHT PATTERN:

a. Transit over Ireland to sampling location and approx 20K ft (2hr 10min)

b. Execute a profile to 50ft in cloud free air, if possible, @ 1000ft/min then, once in the marine boundary layer, profile @ 500ft/min (30min)

c. Conduct a K-GAMMA wind field calibration (5min)

d. VACC horizontal runs will be conducted at 100ft, 1,000ft and 2,000ft above sea-level (25min each) and in the free troposhpere, but these altitudes may be changed slightly depending on marine boundary layer structure. Each VACC run will comprise two figure-of-eight race tracks across wind direction (total of four 5-minute legs, one for each heater tube, and an approximate one minute turn). Provision should be made for an extra run depending on layer structure. A short run through the broken cumuli cloud (500ft above CB) is required to determine cloud properties. In between VACC run profile at 500ft/min

e. On completion of stack, terminate the scientific part of the flight with a profile down to 50ft @ 500ft/min (30min).

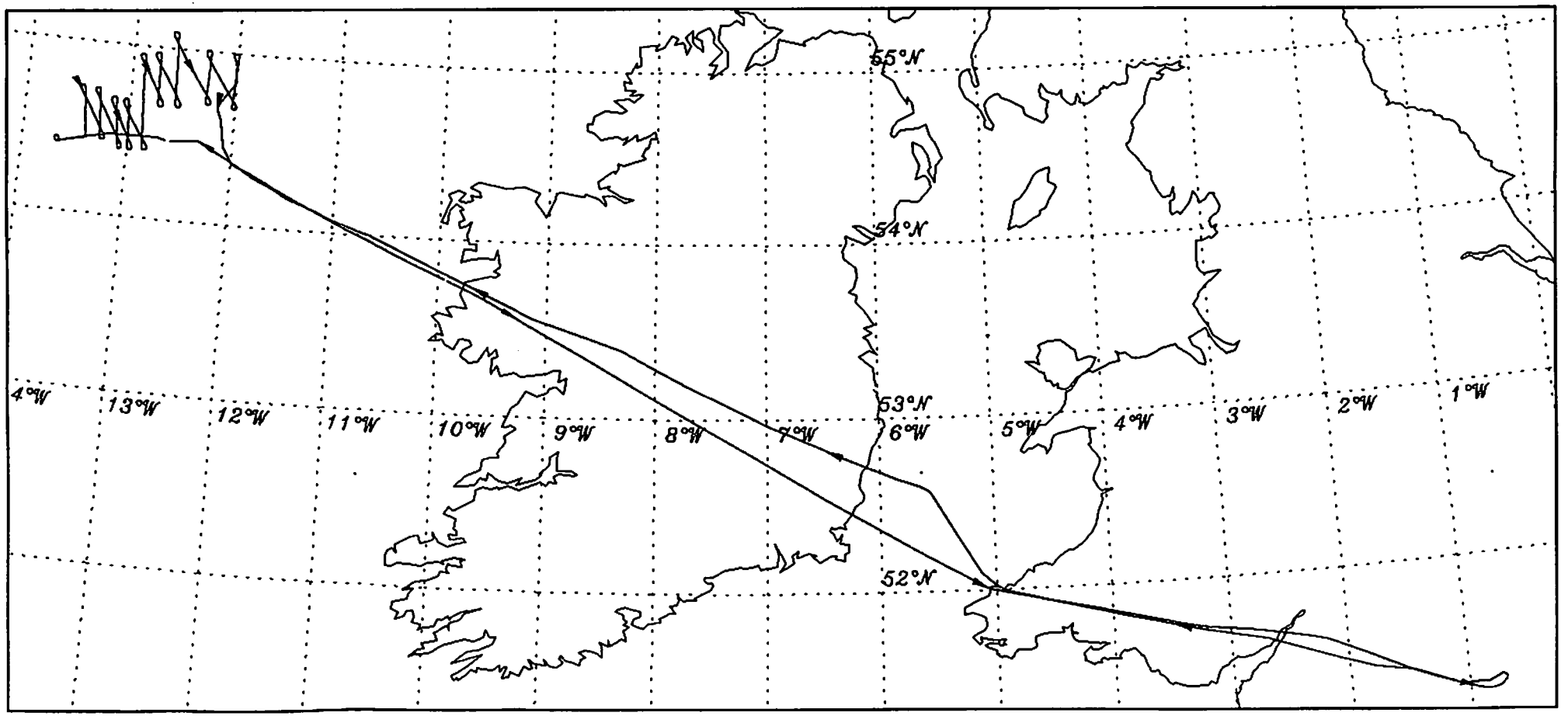
f. Transit back to base (1hr 50min)

TOTAL DURATION Transit 4 hrs
VACC 3-3.5hrs

Request diplomatic clearance to transit over Ireland

A309 21-JAN-94

GPS data
09:28:58 – 16:06:24



AIRCRAFT SCIENTIST'S LOG

Project: VACC Date: 24/1/94

Aircraft Scientist: A. Kaye

Flight No: A309 Page 1 of 5

Natural Environment Research Council

GMT (TO: 10:00:08)	Event Mark	Run No.	Height	Pres/Rad	INS Heading	Omega Pos'n Latitude / Longitude	Other Info. (eg. clouds, weather, visibility, winds, sea state etc.)	Photo No.
10:08:15	00	TRANS	7.5K	P	297	51.35 / -1.42	Sc below confused above with Sc & Ci blue sky visible through gaps	
10:16:24	00	TRANS	15.5K	P	290	51.48 / -2.12	Sc below waves visible & Ci above.	
10:20:48	00	TRAN	19.1K	P	290	51.57 / -2.52	In cloud layer. see tephi!	
10:26:19	00	TRAN	19.9K	P	284	51.68 / -3.03	out of cloud hazy above, no sky visible 8/8 sc below some small gaps visible on right. Blue sea visible.	
10:35:23	00	TRANS	19.9K	P	284	51.85 / -4.13	5/8 cu below clearing ahead. solid cloud above.	
10:56:00	00	TRANS	19.9K	P	290	52.70 / -6.06	7/8 sc below waves visibe. thin ci just below 7/8 ci above.	
11:21:42	01	TRANS	19.9K	P	284	53.50 / -8.85	6/8 sc below occational cu 7/8 ci above.	
11.34.55	02	TRANS	19.9K	P	287	53.88 / -10.20	4/8 sc/cu mixture 7/8 ci above.	
11:48:08	03	P1	200FL	P	289	54.25 / -11.50	4/8 sc with some cu immediately below. thin ci above	
11:53:21	03	P1	15.3K	P	291	54.35 / -11.80	7/8 sc below just passed over edge thin ci above.	
12:00:32	03	P1	7.7K	P	266	54.50 / -12.29	approaching top of sc Deck.	
12:14:??	05	P1	??ft	K	253	54.44 / -13.35	4/8 sc above hazy sea state 6.	

11:45

wind 40@30kts

CT. 7000 5200 c 4000-

AIRCRAFT SCIENTIST'S LOG

Project: VAC- Date: 21/1 /14

Aircraft Scientist: A Kaye. Flight No: A309 Page 2 of

Natural Environment Research Council

GMT	Event Mark	Run No.	Height	Pres/Rad	INS Heading	Omega Pos'n Latitude / Longitude	Other Info. (eg. clouds, weather, visibility, winds, sea state etc.)	Photo No.
12:15:15	06	KB-1	100ft	R	256	54.43 / -13.46	50ft swells on Radar Alt! end 12:17:16	
12:20:18	09	KB 2	100ft	R	74	54.43 / -13.54	end 12:22:05	
12:23:29	11	R2.2	100ft	R	346	54.45 / -13.59	7/8 sc overhed.	
12:28:29	12	R1.1	100ft	R	342	54.73 / -13.44	7/8 Sc overhead.	
12:30:05	14	R1.2	100ft	R	154	54.70 / -13.45	7/8 Sc overhead Bright area dirally ahead	
12:35:05	15	R1.2	100ft	R	152	54.47 / -13.21		
12:36:44	16	R1.3	100ft	R	348	54.49 / -13.26	7/8 Sc above. .	
12:41:44	17	R1.3	100ft	R	352	54.74 / -13.29	7/8 Sc above.	
12.43.37	18	R1.4	100ft	R	358	54.68 / -13.29	8/8 sc overhead — bright area ahead.	
12.48.37	19	R1.4/R2.1	100ft	R	155	54.45 / -13.07	6/8 Sc overhead.	
12.50.49	20	R2.1	1010ft	R	349	54.44 / -13.10	8/8 Sc overhead.	
12.55:50	21	R.2.1	1000ft		348	54.69 / -13.14	Solid sc an overhead sea appears to be rougher at this end, ~~turning~~ as we near calming slightly edge of storm sheet.	

1000: 4000 1min TOC

AIRCRAFT SCIENTIST'S LOG

Project: VACC Date: 21/1/94

Aircraft Scientist: A. Kaye

Flight No: A309 Page 3 of

Natural Environment Research Council

GMT	Event Mark	Run No.	Height	Pres/Rad	INS Heading	Omega Pos'n Latitude / Longitude	Other Info. (eg. clouds, weather, visibility, winds, sea state etc.)	Photo No.
12:57:18	23	R2.2	1000	R	160	54.64 / -13.14	some light precip.	
13:02:18	22	R2.2	1000	R	159	54.42 / -12.95	at edge of cc deck.	
13:03:46	23	R2.3	1000	R	349			
13:08:37	24	R2.3	1000	R	346	54.68 / -13.02.		
13.10.08	25	R2.4	1000	R	157	54.63 / -13.02	precip ahead the Sc deck appears to be breaking up to the south.	
13.15.08	31	R2.4	1000	R	170	54.42 / -12.80		
13.15.49	32	R2.2	1000	P	303	54.40 / -12.85	6/8 Sc. above some precip around.	
13.20.11	33	P2.2	3500	P	348	54.65 / -12.86	Solid Sc above.	
13.21.24	34	R3.1	3100	P	347	54.69 / -12.86	Just below Sc deck some light Precip.	
13.26.25	35	R3.1	3100	P		54.96 / -12.89	clear below Sc overhead.	
13.27.48	36	R3.2	3100	P	160	54.92 / -12.91		
13.32.48	37	R3.2	3100	R	158	54.69 / -12.69	8/8 Sc overhead.	

1430 SOCL
14:13
54 04 N
11 52 E
15 55

AIRCRAFT SCIENTIST'S LOG

Project: VACC Date: 21/1/94

Aircraft Scientist: A. Kaye. Flight No: A309 Page 4 of

Natural Environment Research Council

GMT	Event Mark	Run No.	Height	Pres/Rad	INS Heading	Omega Pos'n Latitude / Longitude	Other Info. (eg. clouds, weather, visibility, winds, sea state etc.)	Photo No.
13.34.20	38	R3.3	3100	P	348	54.71 / -12.74	hazy 8/8 sc above. Some gaps in sc as we fly ~~South~~ North.	
13:39:20	39	R3.3	3100	P	349	54.97 / -12.74		
13:40:47	40	R3.4	3100	P	162	54.94 / -12.76		
13:45:47	41	R3.4	3100	P	157	54.72 / -12.5~~4~~	7/8 sc overhead.	
13:46:16	43	P2.3	3100	P	211	54.68 / -12.52		
13.50.30	45	~~R4~~	5400	P	348	54.89 / -12.58	Just in and out of cloud. in thick level.	
13.52.50	46	R4	~~5~~800	P	~~3~~	/	in cloud.	
13:54:05	47	R4/P2.4	5800	P	345	55.07 / -12.59	in cloud.	
14:15:37	55	R5.3 on A	7600	P	222	54.67 / -11.99	thick Ci above 8/8 sc below. VERY Sunny.	
14.17.01	56	R5.4	7700	P	348	54.70 / -12.02	7/8 sc below.	
14:22:01	57	R5.4	7700	P	347	54.97 / -11.98	thin Ci overhead 8/8 sc below.	
14:2~~8~~:03	58	P3	~~6~~0~~4~~t	R	216	54.7~~4~~ / -12.0~~3~~	Sea State 5-6 1020mb	

AIRCRAFT SCIENTIST'S LOG

Project: VAcc Date: 21/1/94

Aircraft Scientist: A. Kaye Flight No: A309 Page 5 of 5

Natural Environment Research Council

GMT	Event Mark	Run No.	Height	Pres/Rad	INS Heading	Omega Pos'n Latitude / Longitude	Other Info. (eg. clouds, weather, visibility, winds, sea state etc.)	Photo No.
14:39:51	61	P3	6.20K	P	127	54.26 / -11.61	Clear right overhead. Several contrails visible overhead. Ci in dist 8/8 sc below.	
14:45:23	61	P3	10.9K	P	123	54.08 / -11.05	5/8 sc below thin ci overhead w/contrails.	
14.41.55	63	P3	16.5	P	124	53.92 / -10.50	1/8 sc Below thin ci overhead Thickening to east.	
15:14:51	63	PA	24.8	P	129	52.79 / -7.09	7/8 cloud below very confused sc/cu. Ci above ahead.	

BOOM OPERATORS LOG

FLIGHT A309 DATE 21/01/94 PROJECT VACC PART of

G.M.T.	HEIGHT	I.A.S.	RUN	FILTER	POS.N	PUMP	REMARKS
NB : BLANK TAKING IN BOOM AIR ON OUTWARD TRANSIT !							
105430	FL200	220	–	138	1/B	396·777	
105730	"	"	–	"	"	396·877	
122407	1100'	180	1	108	1/B	396·877	} FILTER SPLIT
NB Passed through precip several times							
134534						402·067	
135102	770'	180	5	116		402·067	
142202				116		403·396	
143340	–	–	–	120		403·396	BLANK
143550						403·545	

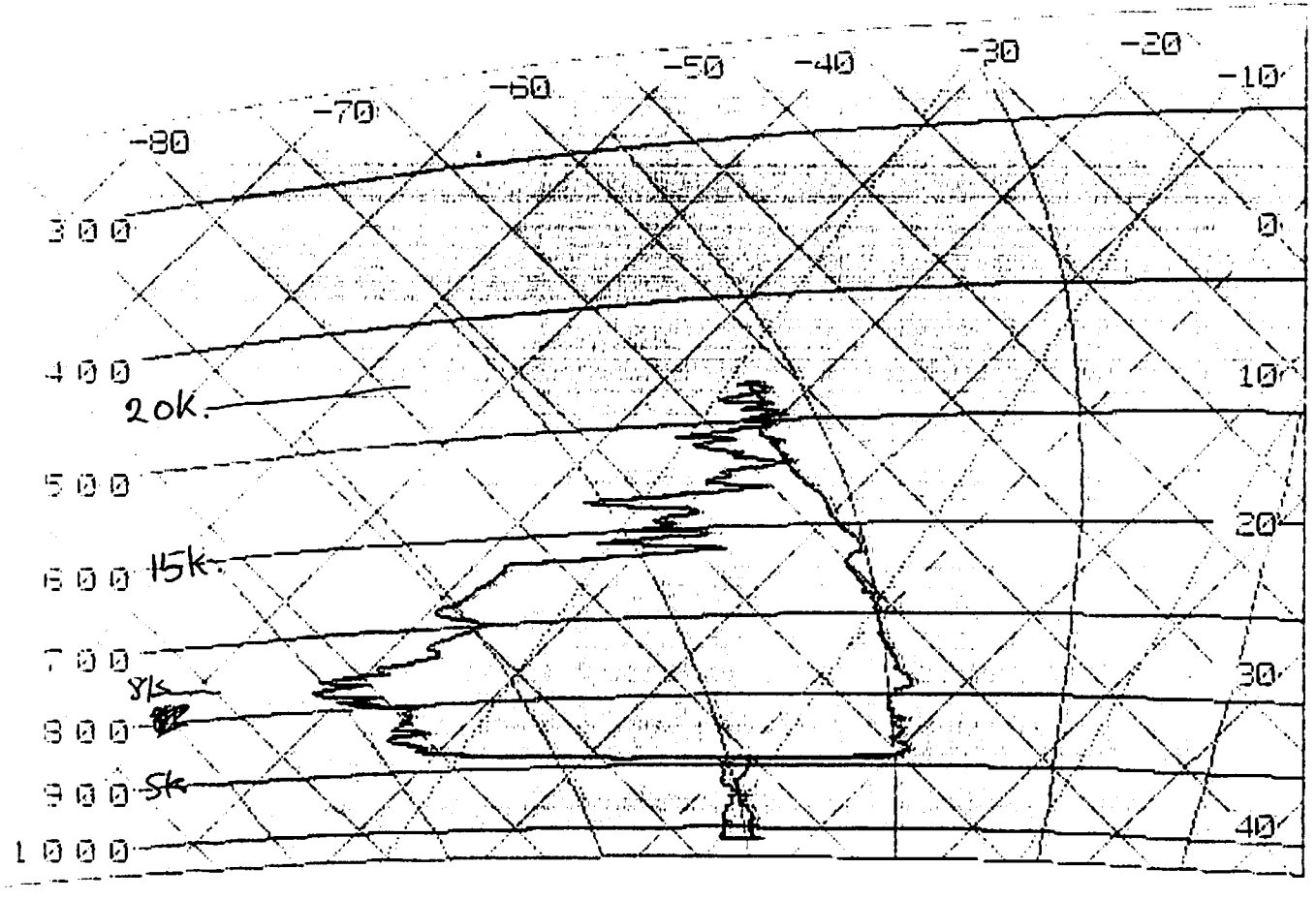
A309 VACC 21/1/94. 1 of 1

GMT	ALLEV. On	ALLEV. Off	Height	Dyn	STATIC 1	2	3	4	5	6	7	REMARKS
		✓			1.75	2.5	3.0	3.5	4.25	5.0	5.5	
103933	✓		4200		486	818	1259	212	7759	2495	3628	D
10424		✓			364	382	651	368	394	440	579	B
					2569	2498	2497	2499	2498	2498	2505	R
					0-12	0.25	0.35	0.47	0.72	0 99	1.72	S
					935							P
112636	✓		—	D	344	327	827	327	1101	2438	4092	D
		✓		B	334	333	351	328	351	547	712	B
				R	2539	2544	2540	2559	2537	2529	2530	R
				S	0.11	0.22	0.33	0.49	0.69	0.92	1.11	S
				P	936		934					P
				CCW	1	3	5	6	10	12	13	CCW
				Cam	1	4	6	8	12	14	16	Cam
				Blank	*	*	*	*	*	*		Blank
113432	✓		—	D	454	733	1093	2583				D
		✓		B	470	369	369	376				B
				R	2490	2516	2513	2574				R
				S	0.11	0.22	0.33	0.44				S
				P	935							P
				CCW	15	25	30	36				CCW
				Cam	20	27	33	34				Cam
				Blank								Blank
					**	*	*	*				
12520	✓		1001	47	386							K ✗
121630		✓		327	325	334						Run
				2521	2515	2519						
					0.11	0.22						
					1005.3							
12240	✓		100'		2856	412	520	496	5355	625	709	D
122627		✓			354	344	339	336	329	334	353	B
					2521	2521	2522	2517	2514	2511	2511	R
					0.11	0.2	0.31	043	0.64	0.91	1.09	S
					1010.7							P
123646	✓		100'	517	429	397	459	417	557	561	733	D
123812		✓		3 17	325	339	323	335	318	315	329	B
				2570	2510	2509	2514	2515	2515	2522	2521	R
					0.11	0.21	0.31	0.45	0.63	0.89	1.06	S
					1010							P

Cabin air

GMT	ALLEV. On	ALLEV. Off	Height	Dyn	STATIC 1	2	3	4	5	6	7	REMARKS
					1.0	2.5	5.0	3.5	4.25	5.0	5.5	
125100	✓		1000'	427	403	867	463	430	435	556	739	D
125220		✓		305	317	318	315	309	310	330	314	B Run 2
				3520	975	2532	2532	2531	2527	2523	2521	R
					0.10	0.21	0.30	0.42	0.62	0.87	1.06	S
					2531							P
140346	✓		1000	488	364	323	409	474	499	695	867	
140512		✓		801	300	305	304	321	305	323	310	Run 2
				2544	2522	2522	2527	2529	2535	2536	2536	
					0.10	0.21	0.30	0.41	0.62	0.86	1.06	
					976							
132130	✓		3100'	547	332	340	387	411	445	753	582	
132243		✓		294	299	313	300	293	293	298	296	Run 3
				2563	2599	2563	2564	2564	2564	2564	2564	
					0.10	0.21	0.30	0.41	0.61	0.86	1.05	
					905							
133425	✓		3100'	452	390	318	404	465	448	657	614	
133545		✓		296	291	293	296	290	292	296	298	Run 3
				2565	2564	2562	2562	2564	2561	2562	2560	
					0.10	0.21	0.30	0.41	0.61	0.85	1.05	
					2564							
135734	✓		7700'		297	296	313	389	380	512	555	Run 5
135430		✓			295	296	293	296	299	298	315	
					2563	2564	2564	2564	2561	2557	2555	
					0.10	0.20	0.30	0.41	0.62	0.85	1.04	
141050	✓		7700'		293	300	339	360	316		502	
141213		✓			292	309	290	293	311		346	Run 5
					2546	2546	2545	2541	2541		2541	
					0.10	0.22	0.30	0.44	0.62		1.05	
144116	✓		—		301	332	297	427	460	685	628	D Calcium
144304		✓			318	303	300	370	322	318	303	B Blank
					2551	2550	2553	2547	2550	2549	2548	R
					0.10	0.21	0.30	0.42	0.62	0.87	1.07	S
					859							P

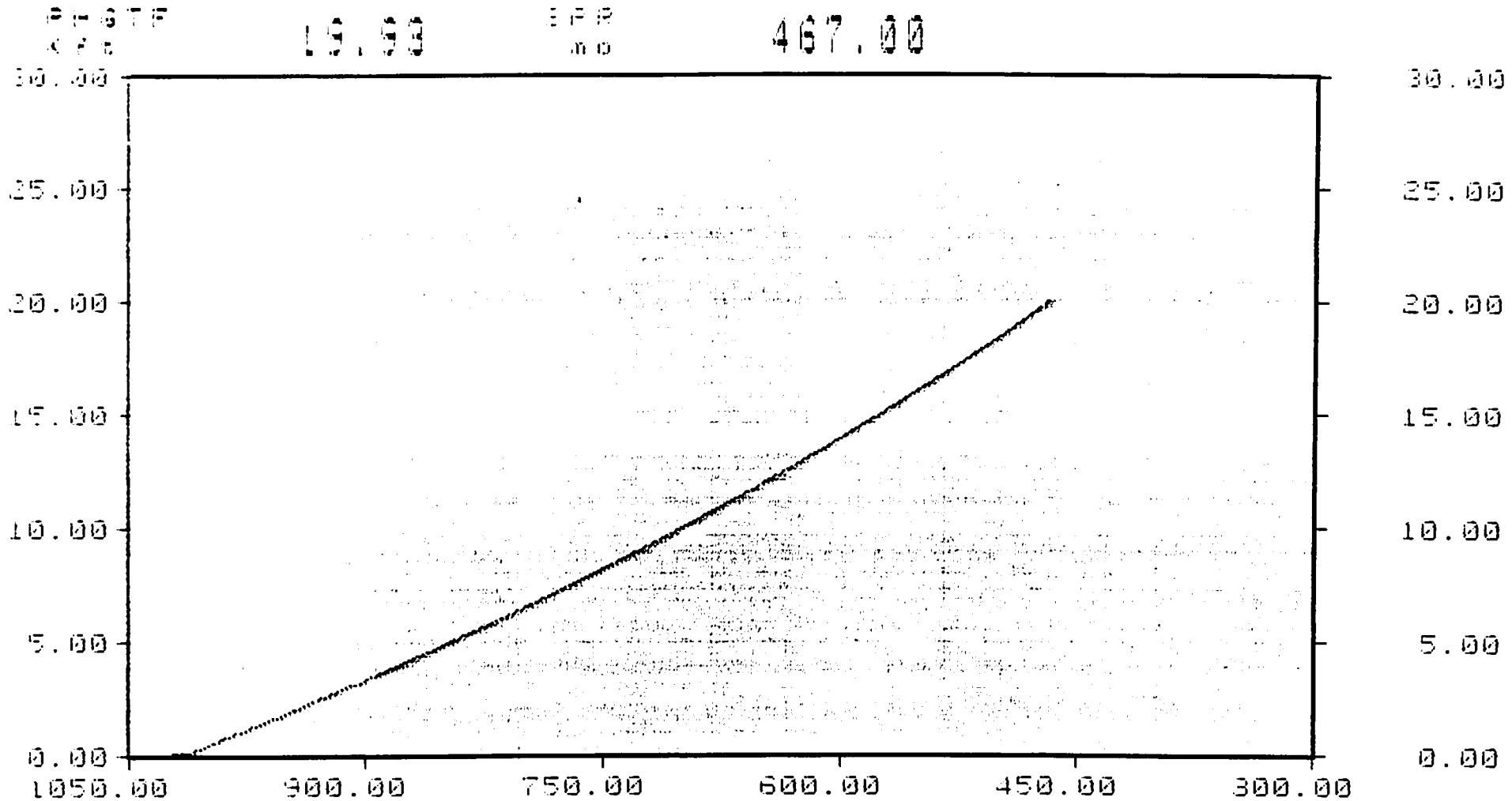
HDG	SPR	PHGT	TAS	TAT	DEW	WIND
deg T	mb	kft	knots	C	C	deg m/s
289.	468.	19.9	257.	-24.4	-23.5	283/20



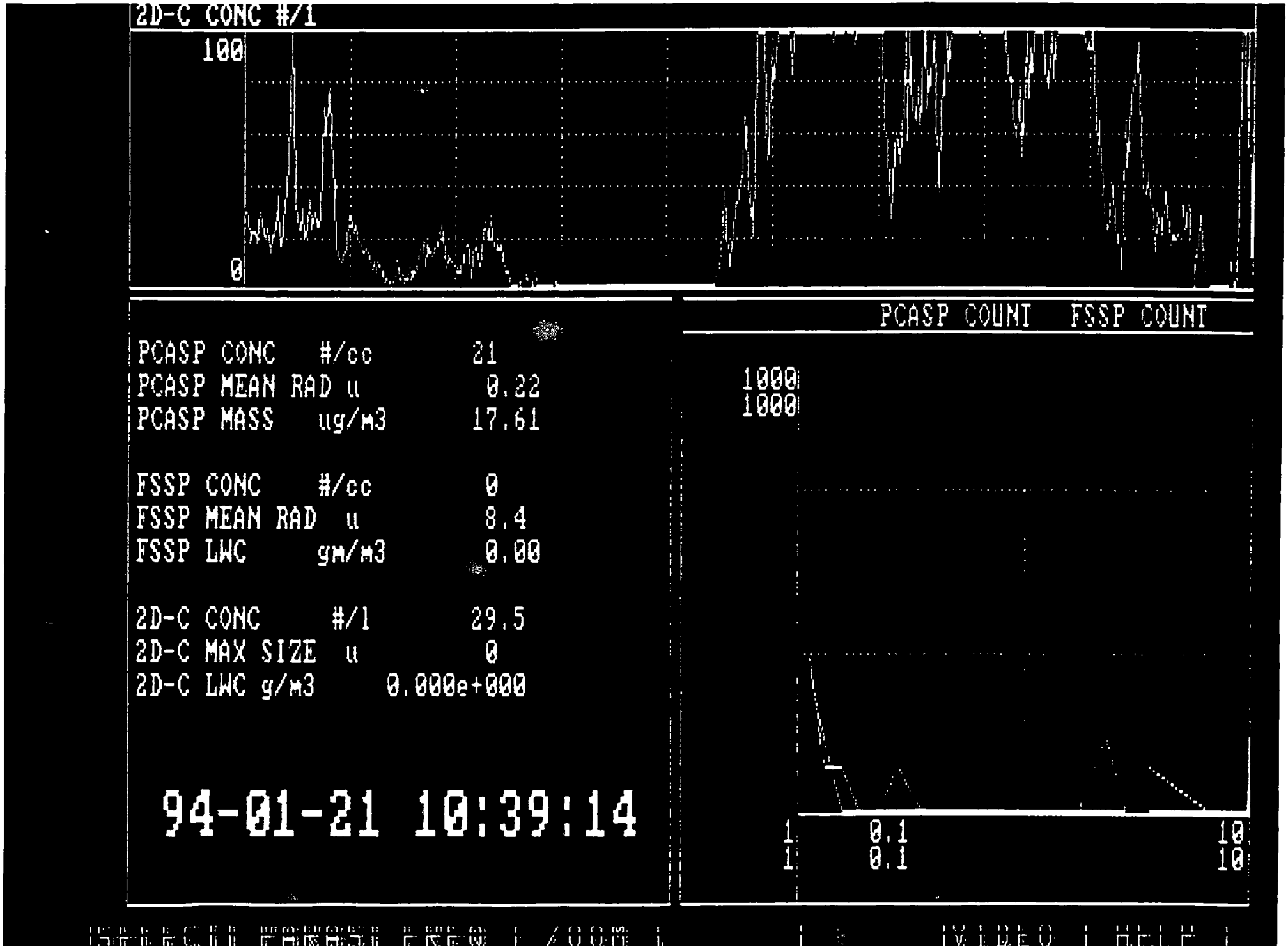
A	B	C	D	E	F	G	H
SELECT	PARAS	FREQ	ZOOM			VIDEO	HELP

H309 21-JAN-94 10:23:45 000 52 51.64 -2.74 FL F

HDG degT	SPR mb	PHGT kft	TAS knots	TAT C	DEW C	WIND deg m/s	
283.	467.	19.9	279.	-24.6	-26.0	284/19	

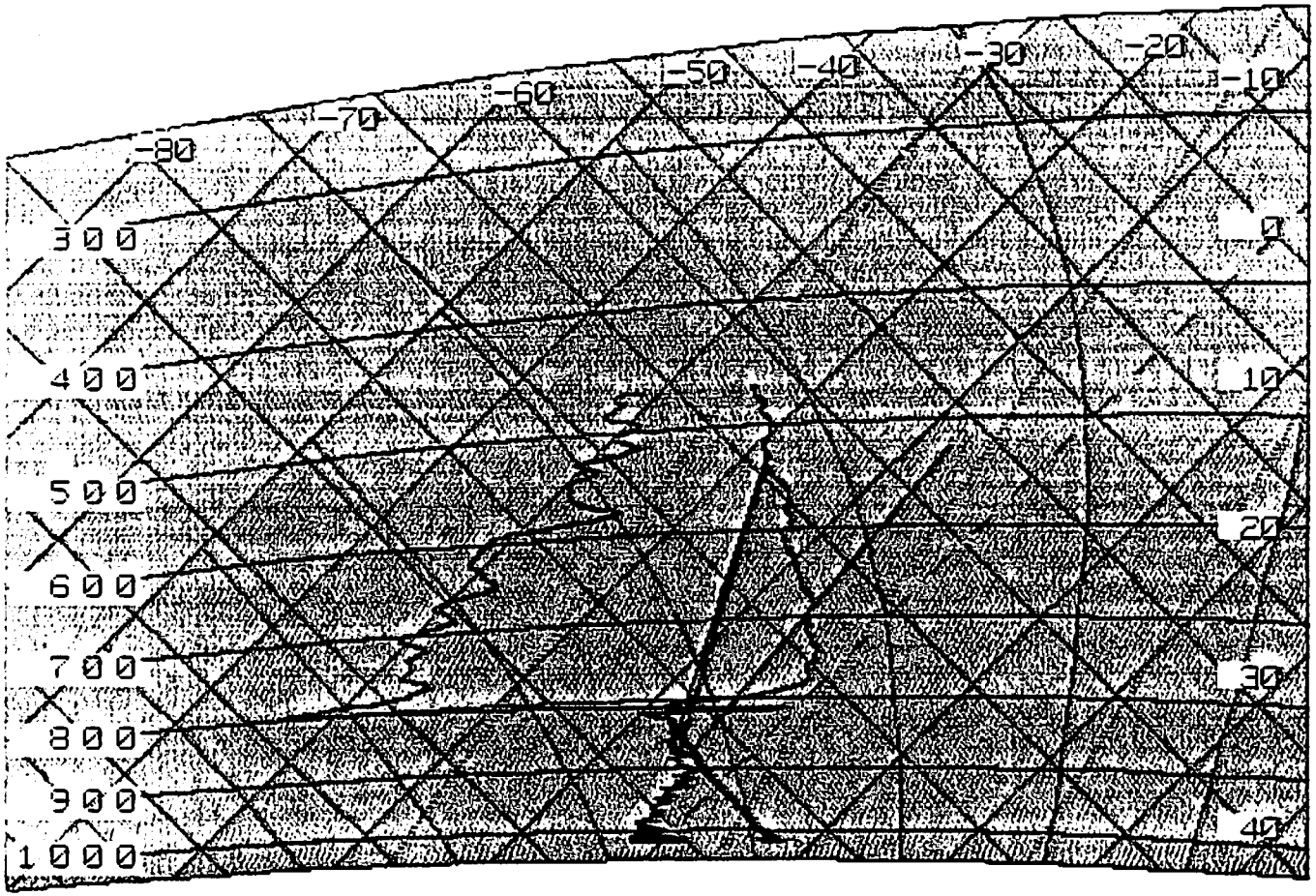


A	B	C	D	E	F	G	H
SELECT	PARAS	FREQ	ZOOM			VIDEO	HELP


2D-C CONC #/l
100
0
PCASP CONC #/cc 21
PCASP MEAN RAD u 0.22
PCASP MASS ug/m3 17.61
FSSP CONC #/cc 0
FSSP MEAN RAD u 8.4
FSSP LWC gm/m3 0.00
2D-C CONC #/l 29.5
2D-C MAX SIZE u 0
2D-C LWC g/m3 0.000e+000
94-01-21 10:39:14
PCASP COUNT FSSP COUNT
1000
1000
1
0.1
10
1
0.1
10

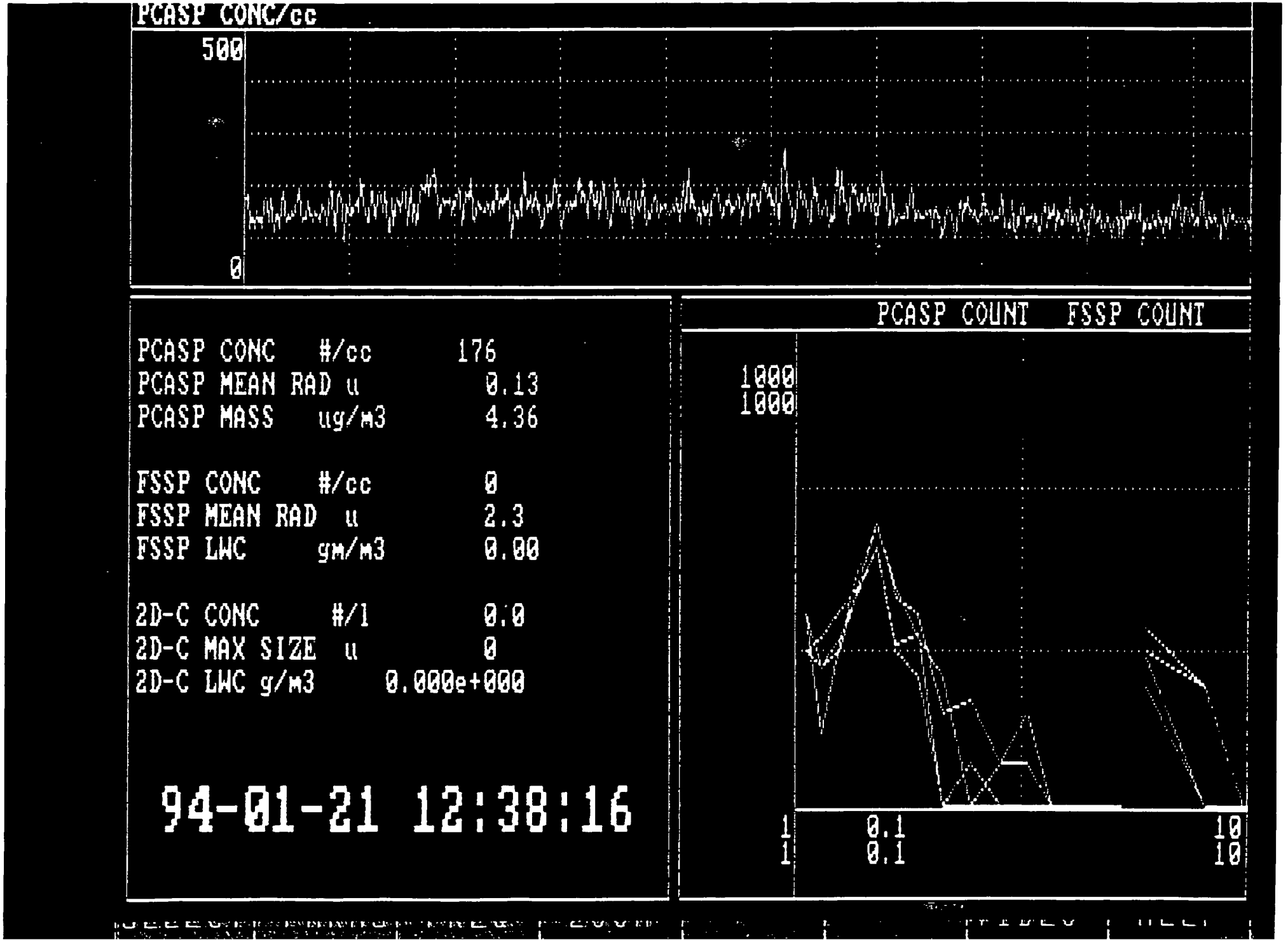
A309 21-JAN-94 12:20:24 009 Ω 54.42 -13.57 RV

HDG degT	SPR mb	PHGT kft	TAS knots	TAT C	DEW C	WIND deg m/s	
74.	1016.	-0.1	181.	7.4	0.6	266/32	



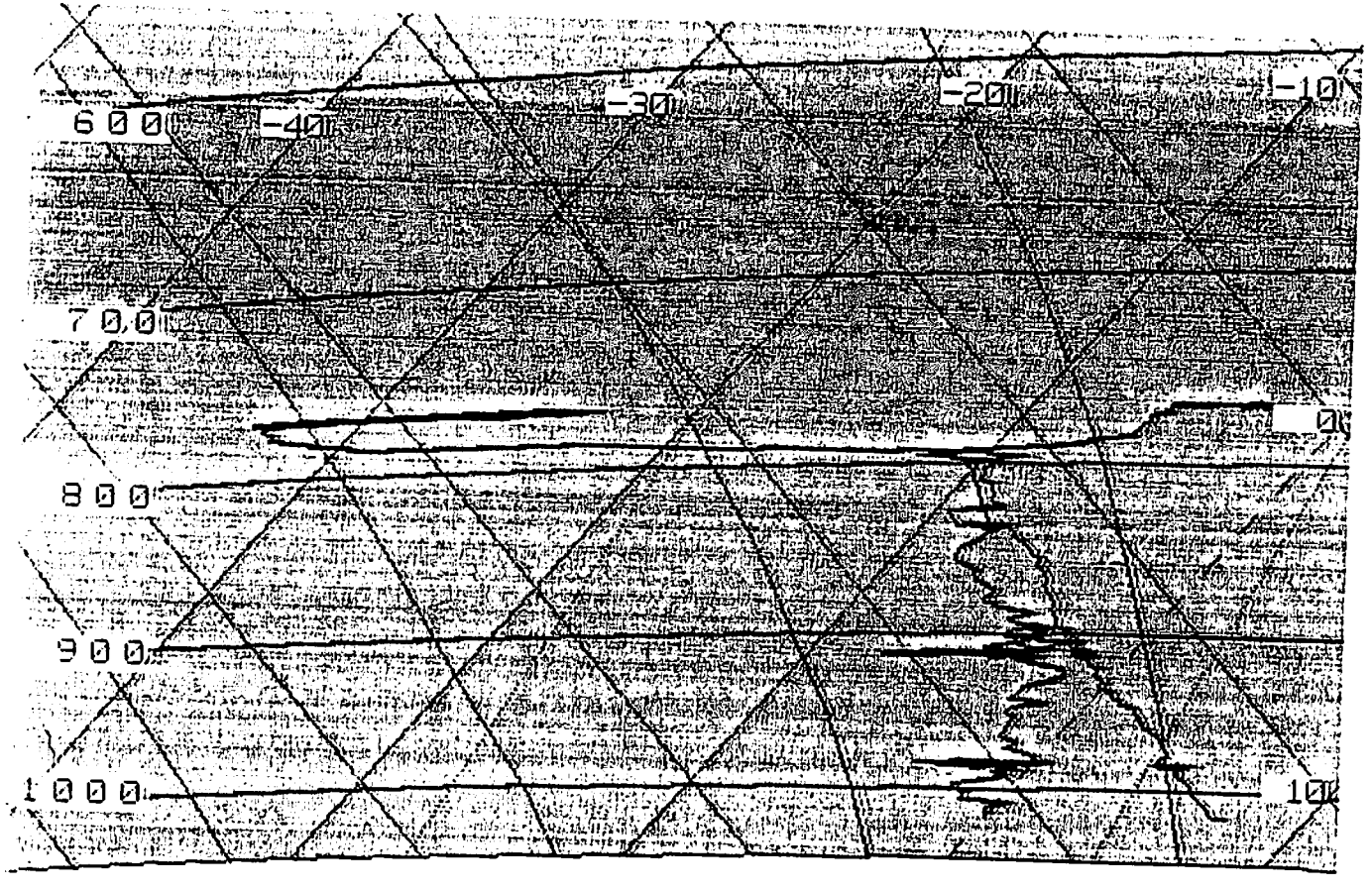
GE DP

A SELECT	B PARAS	C FREQ	D ZOOM	E	F	G VIDEO	H HELP


PCASP CONC/cc
500
0
PCASP CONC #/cc 176
PCASP MEAN RAD u 0.13
PCASP MASS ug/m3 4.36
FSSP CONC #/cc 0
FSSP MEAN RAD u 2.3
FSSP LWC gm/m3 0.00
2D-C CONC #/l 0.0
2D-C MAX SIZE u 0
2D-C LWC g/m3 0.000e+000
94-01-21 12:38:16
PCASP COUNT FSSP COUNT
1000
1000
1
1
0.1
0.1
10
10

A339 21 JAN-94 14:21:01 056 Ω 54.92 -11.99 FR P

HDG deg T	SPR mb	PHGT kft	TAS knots	TAT C	DEW C	WIND deg m/s	
348.	767.	7.5	206.	-4.5	-28.9	239/12	

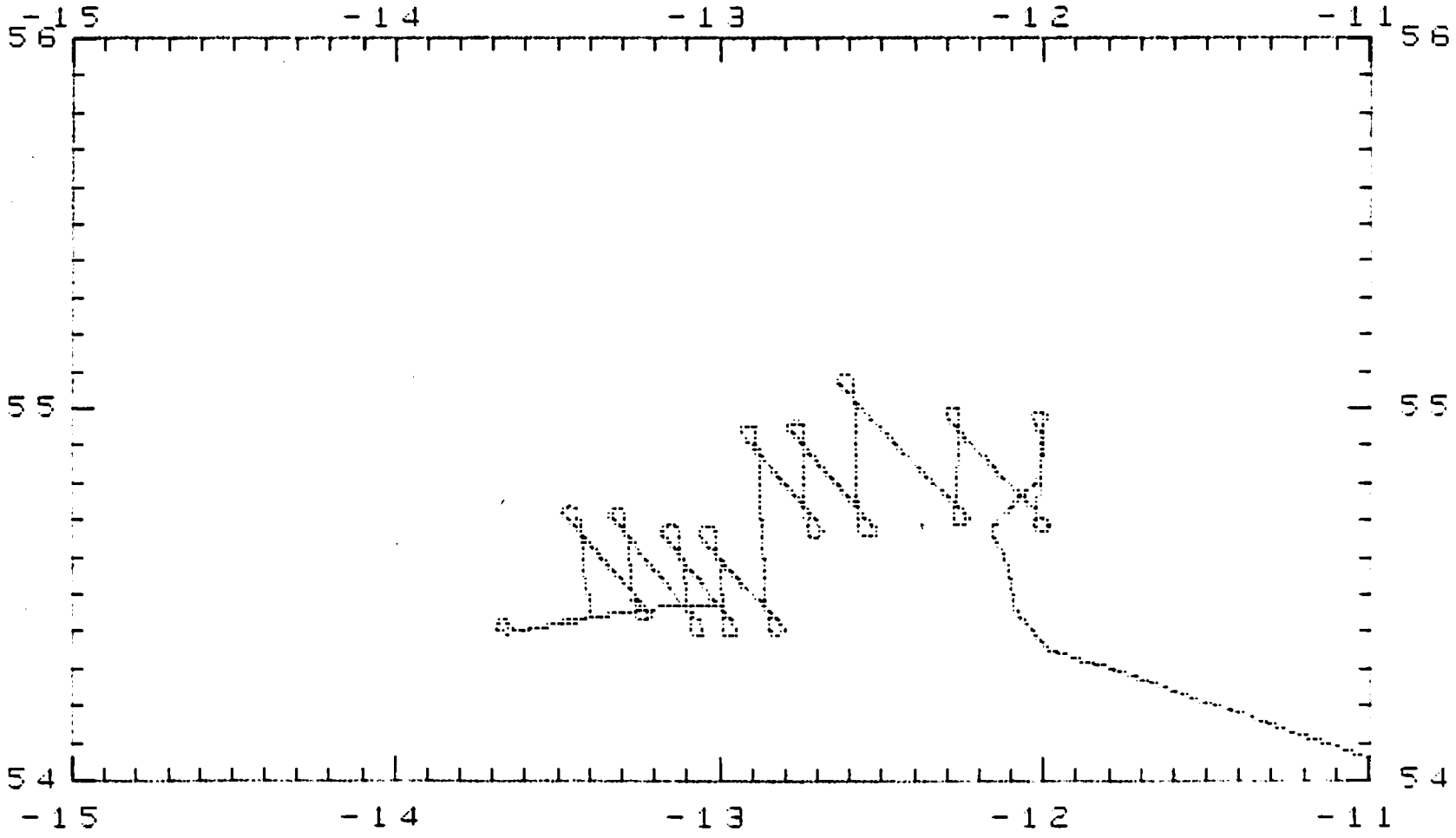


GE DP

A SELECT	B PARAS	C FREQ	D ZOOM	E	F	G VIDEO	H HELP

A309 21-JAN-94 14:46:12 061 54.05 -10.98 AS P

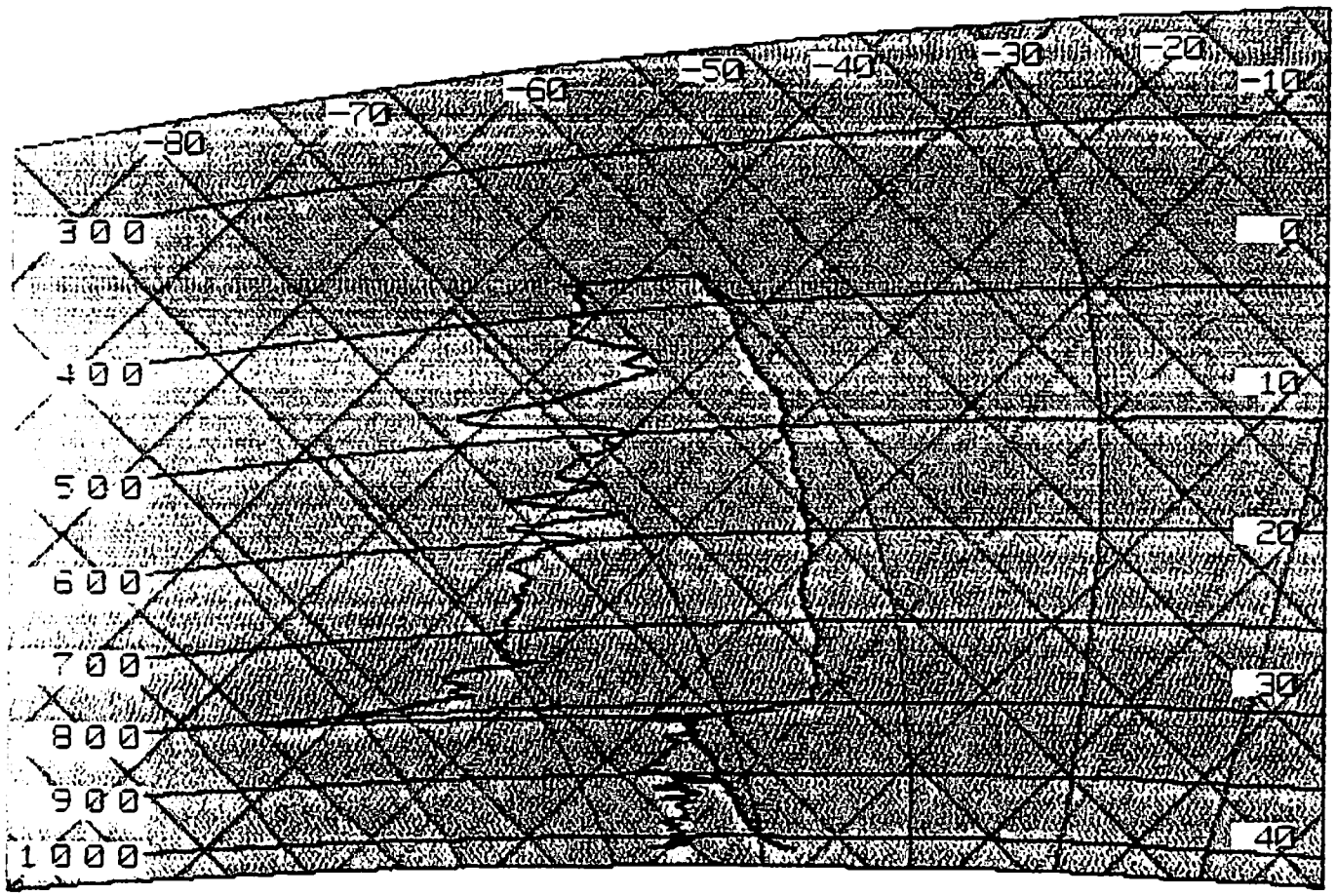
HDG degT	SPR mb	PHGT kft	TAS knots	TAT C	DEW C	WIND deg m/s	
125.	624.	12.8	223.	-10.2	-29.0	253/35	



A SELECT	B	C FREQ	D ZOOM	E	F	G VIDEO	H HELP

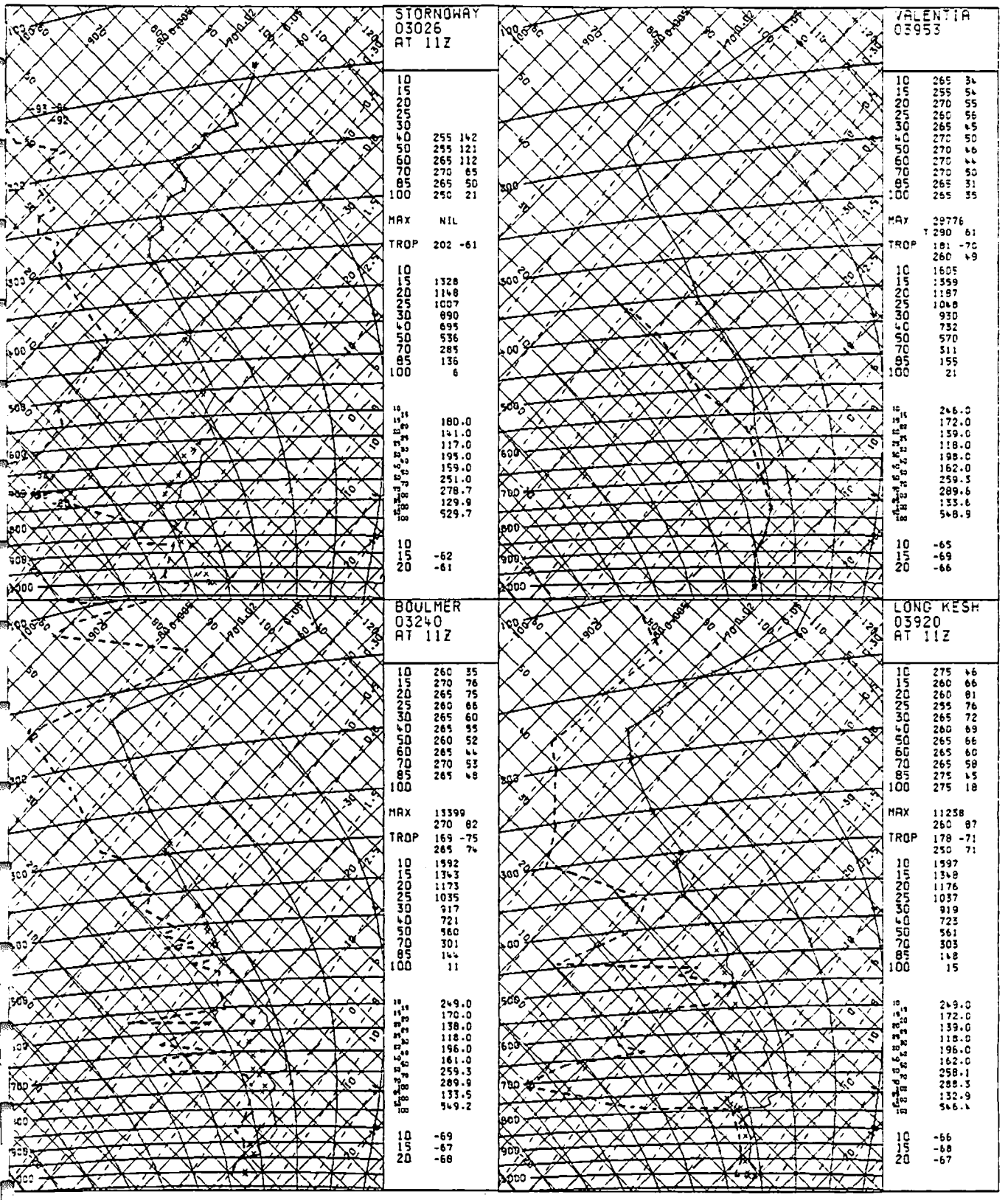
A309 21-JAN-94 15:02:00 063 Ω 53.46 -8.96 RV

HDG degT	SPR mb	PHGT kft	TAS Knots	TAT C	DEW C	WIND deg m/s
128.	378.	24.9	303.	-36.0	-36.5	269/54



GE DP

A SELECT	B PARAS	C FREQ	D ZOOM	E	F	G VIDEO	H HELP



STORNOWAY
03026
AT 11Z

10		
15		
20		
25		
30		
40	255	142
50	255	121
60	265	112
70	270	85
85	265	50
100	250	21
MAX	NIL	
TROP	202	-61
10		
15	1328	
20	1148	
25	1007	
30	890	
40	695	
50	536	
70	285	
85	136	
100	6	
	180.0	
	141.0	
	117.0	
	195.0	
	159.0	
	251.0	
	278.7	
	129.9	
	529.7	
10		
15	-62	
20	-61	

VALENTIA
03953

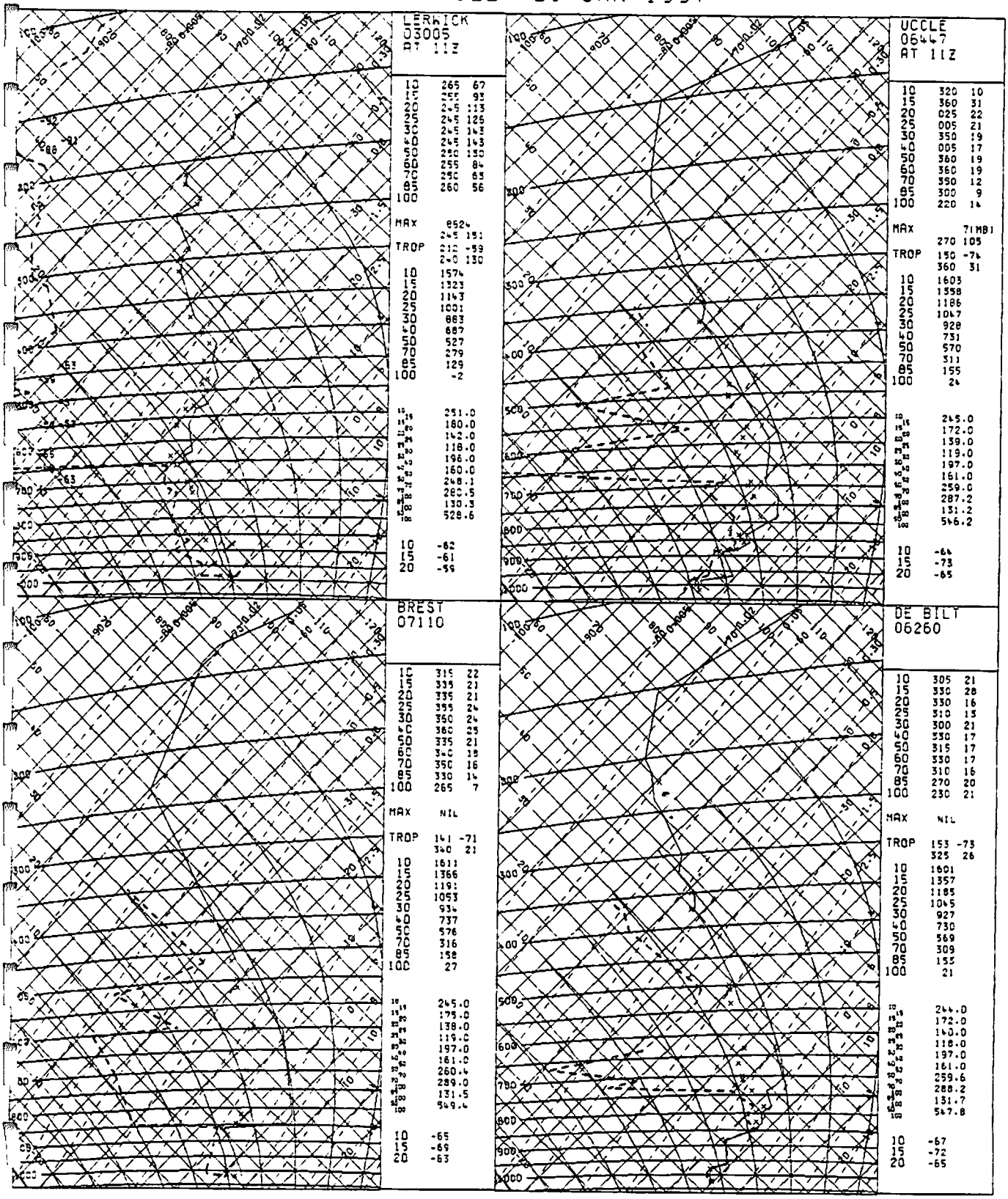
10	265	34
15	255	54
20	270	55
25	260	56
30	265	65
40	270	50
50	270	46
60	270	44
70	270	50
85	265	31
100	265	35
MAX	29776	
	T 290	61
TROP	181	-70
	260	49
10	1605	
15	1359	
20	1187	
25	1048	
30	930	
40	732	
50	570	
70	311	
85	155	
100	21	
	246.0	
	172.0	
	139.0	
	118.0	
	198.0	
	162.0	
	259.3	
	289.6	
	133.6	
	548.9	
10	-65	
15	-69	
20	-66	

BOULMER
03240
AT 11Z

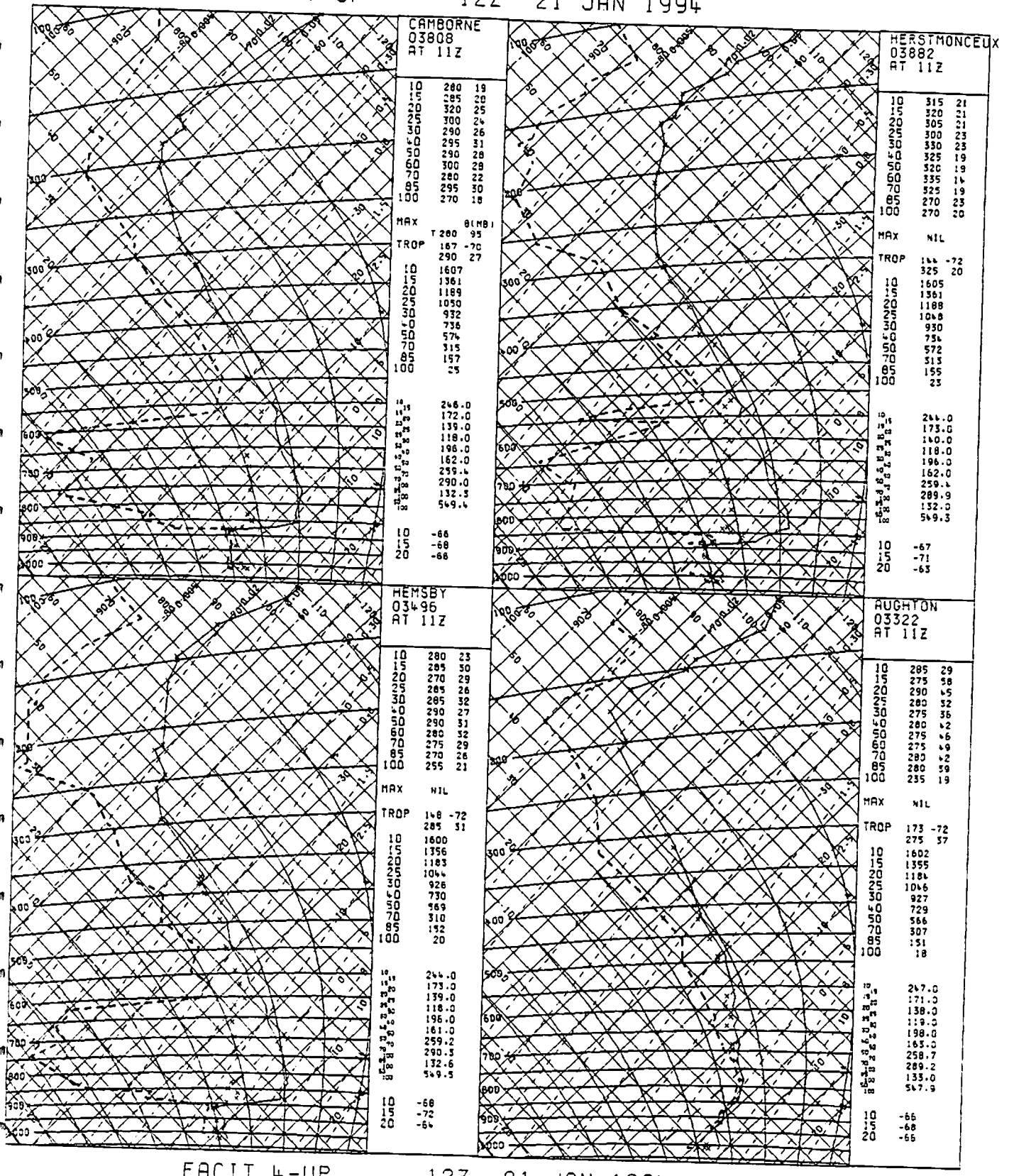
10	260	35
15	270	76
20	265	75
25	260	68
30	265	60
40	265	55
50	260	52
60	265	44
70	270	53
85	265	48
100		
MAX	13399	
	270	82
TROP	169	-75
	265	74
10	1592	
15	1343	
20	1173	
25	1035	
30	917	
40	721	
50	560	
70	301	
85	144	
100	11	
	249.0	
	170.0	
	138.0	
	118.0	
	196.0	
	161.0	
	259.3	
	289.9	
	133.5	
	549.2	
10	-69	
15	-67	
20	-68	

LONG KESH
03920
AT 11Z

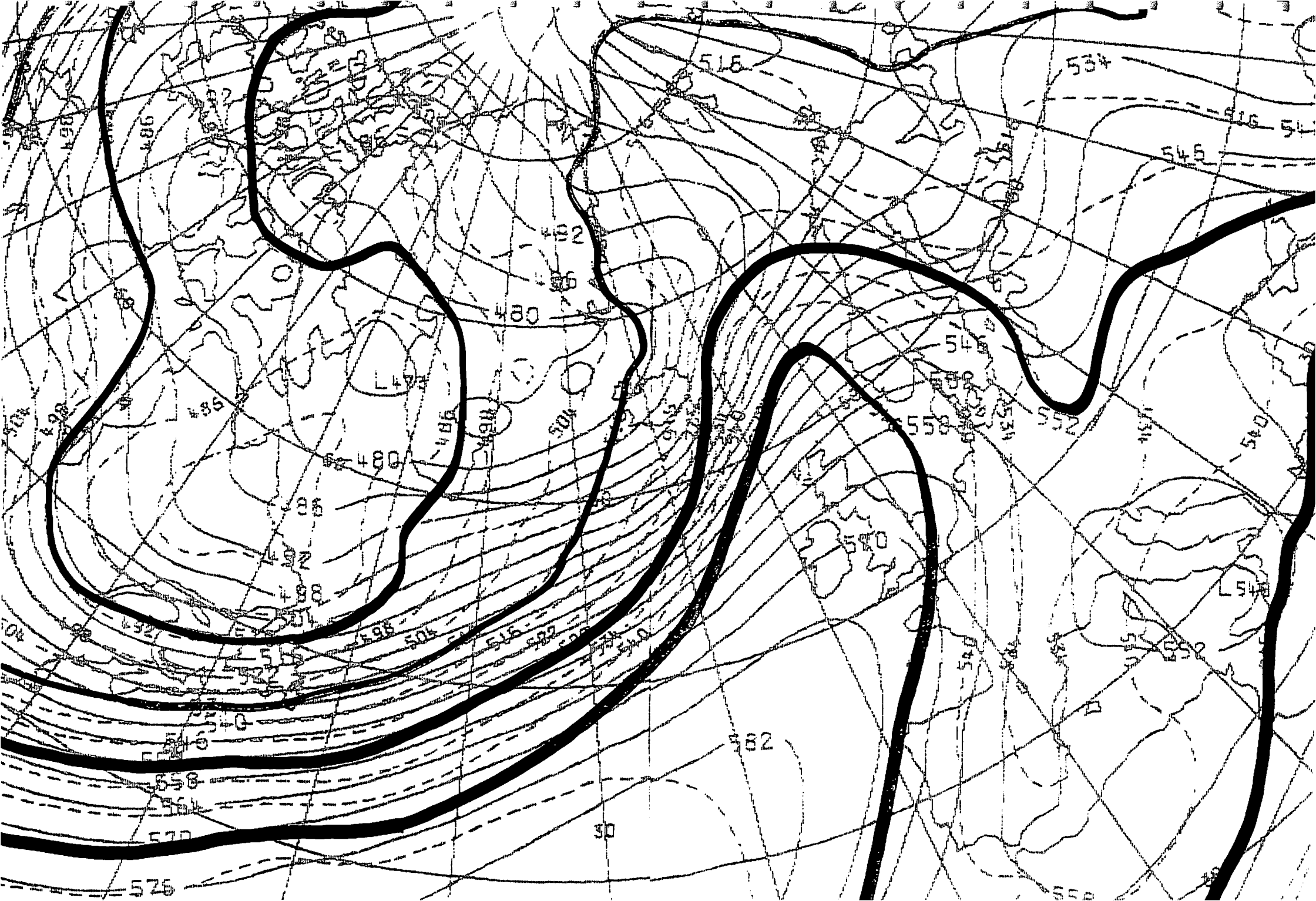
10	275	46
15	260	66
20	260	81
25	255	76
30	265	72
40	260	69
50	265	66
60	265	60
70	265	58
85	275	45
100	275	18
MAX	11258	
	260	87
TROP	178	-71
	250	71
10	1597	
15	1348	
20	1176	
25	1037	
30	919	
40	723	
50	561	
70	303	
85	148	
100	15	
	249.0	
	172.0	
	139.0	
	118.0	
	196.0	
	162.0	
	258.1	
	288.3	
	132.9	
	546.1	
10	-66	
15	-68	
20	-67	


LERWICK
03005
AT 11Z
UCCLE
06447
AT 11Z
BREST
07110
DE BILT
06260

FACIT 4-UP 12Z 21 JAN 1994



FACIT 4-UP 12Z 21 JAN 1994


516
534
546
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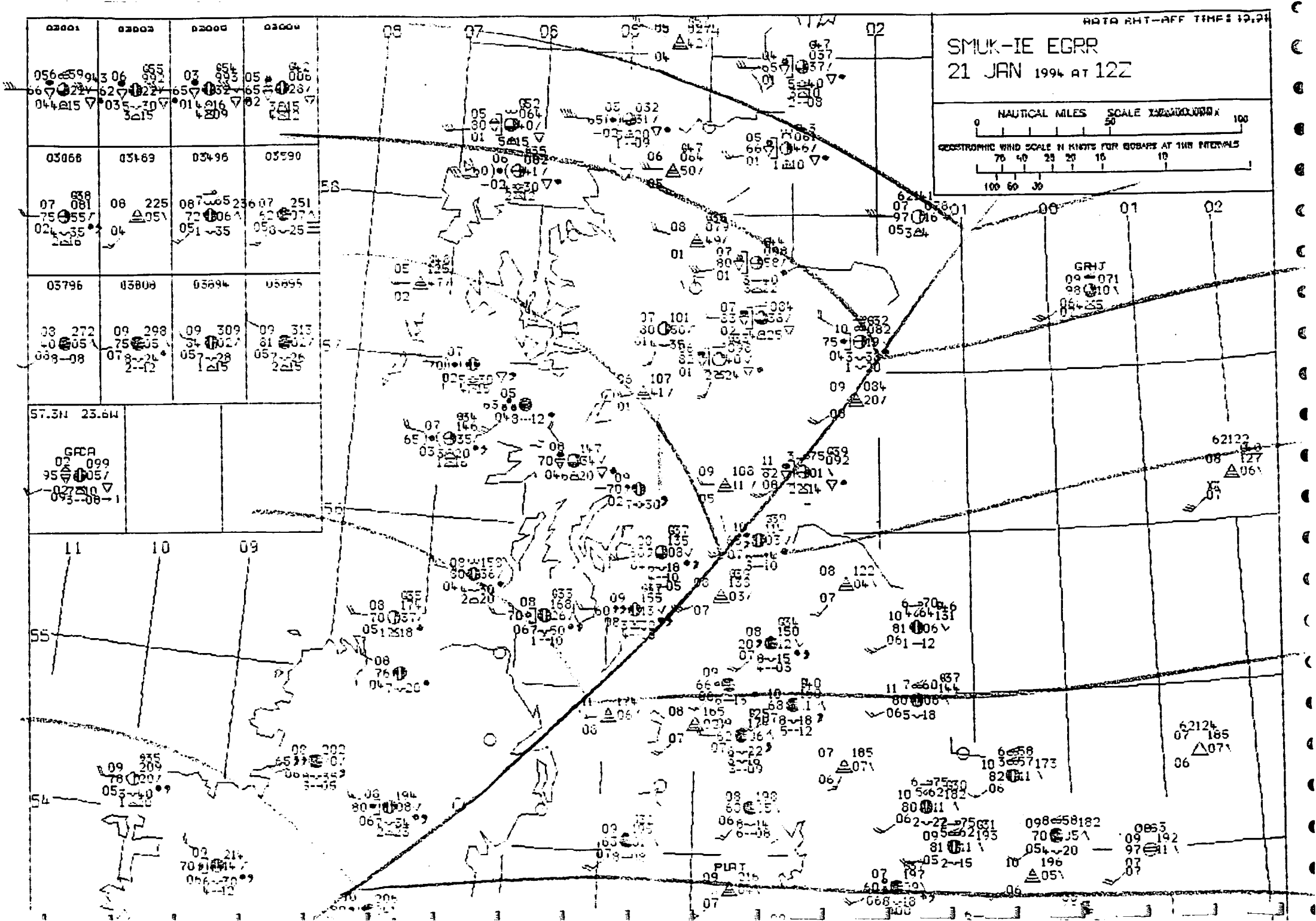
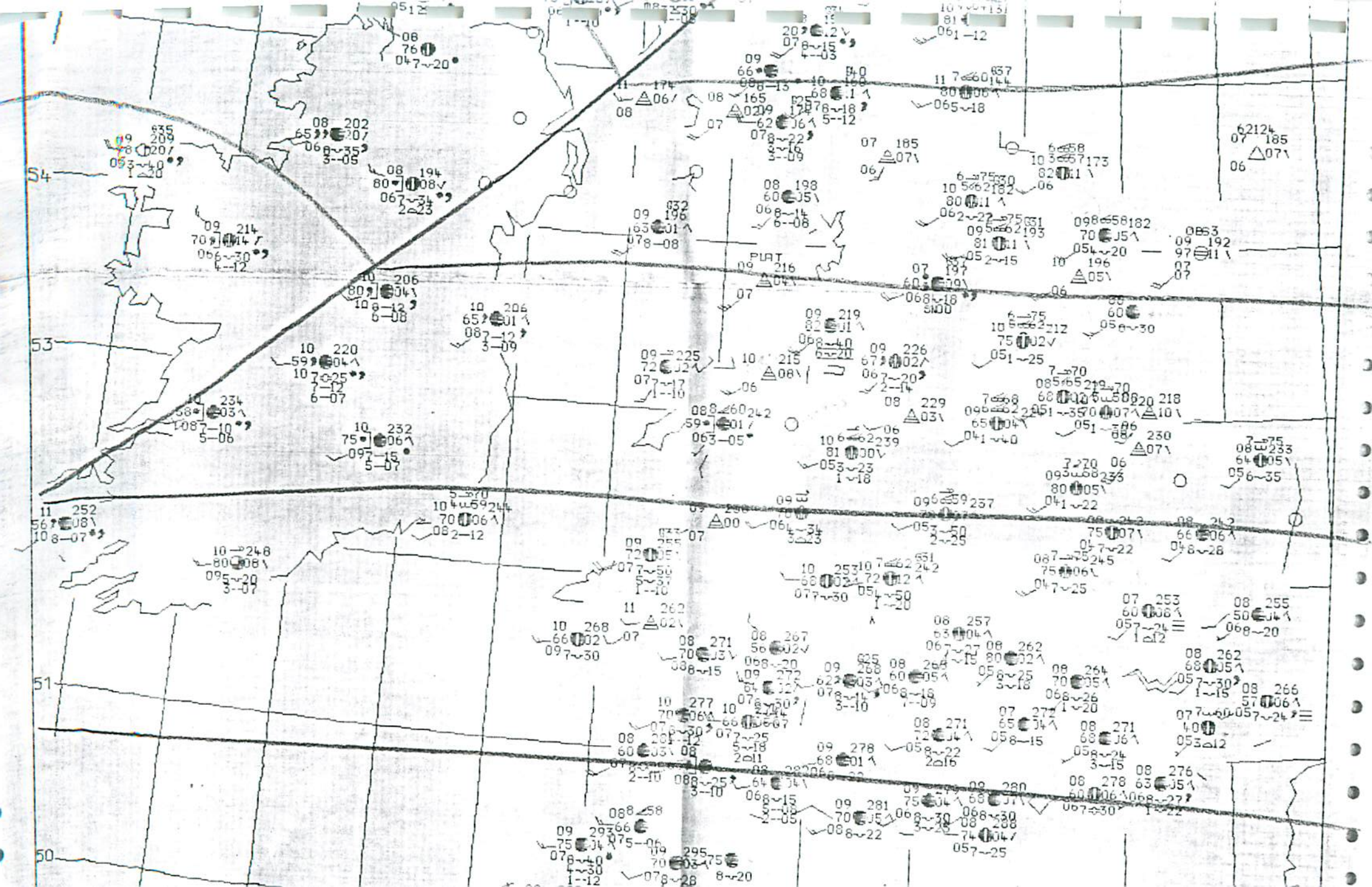
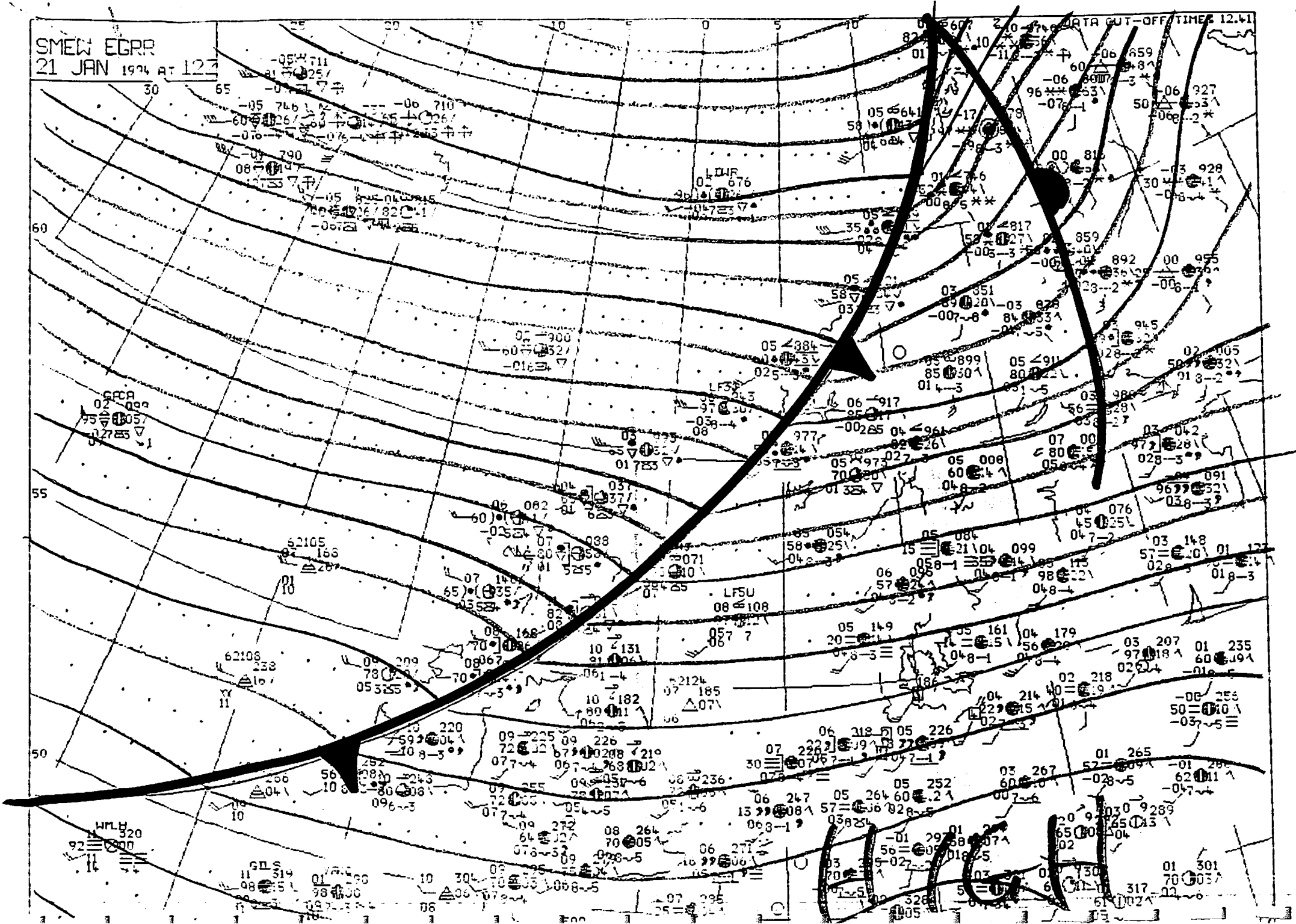
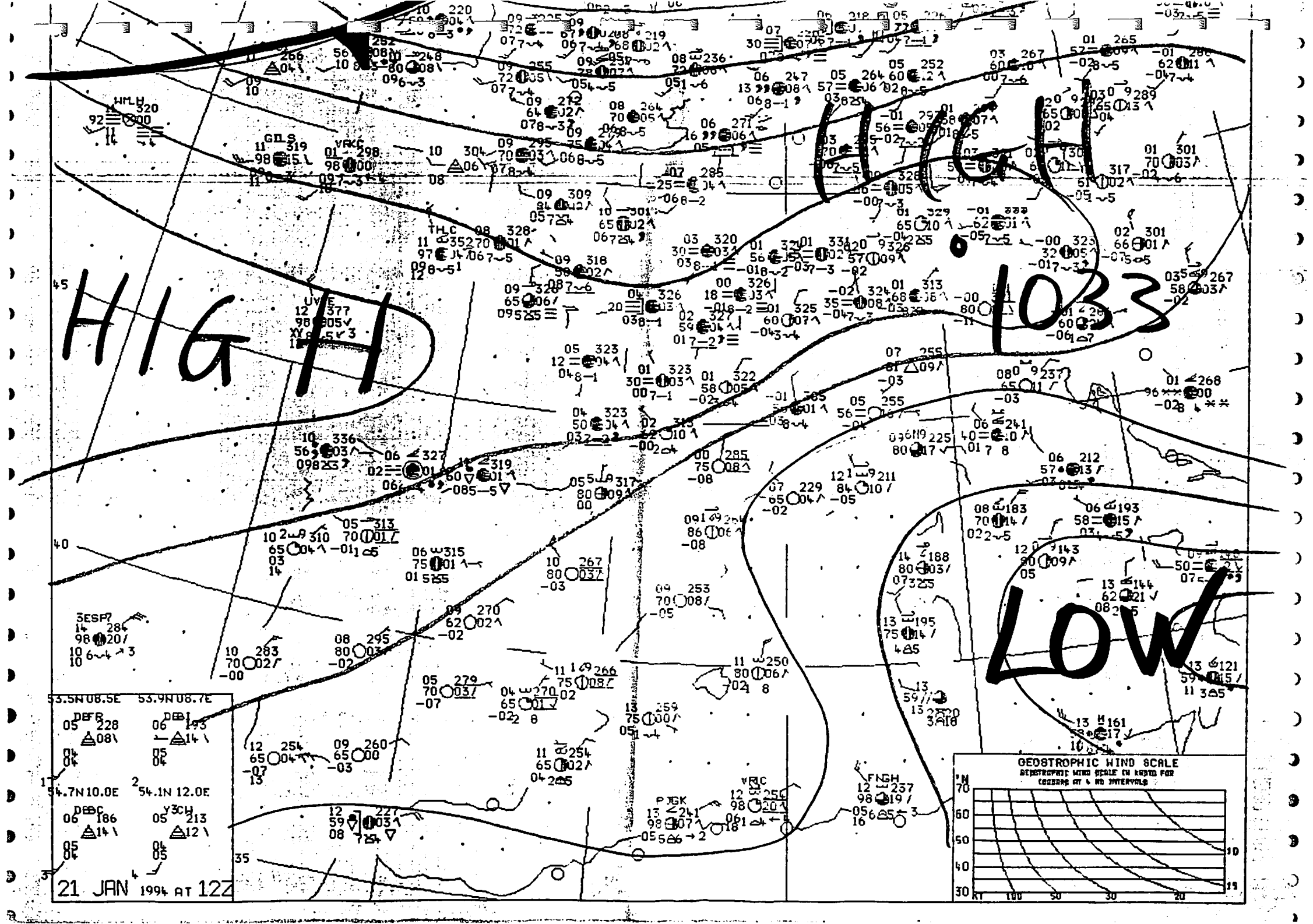
492
498
504
510
540
552
558
570
582
588
594
30

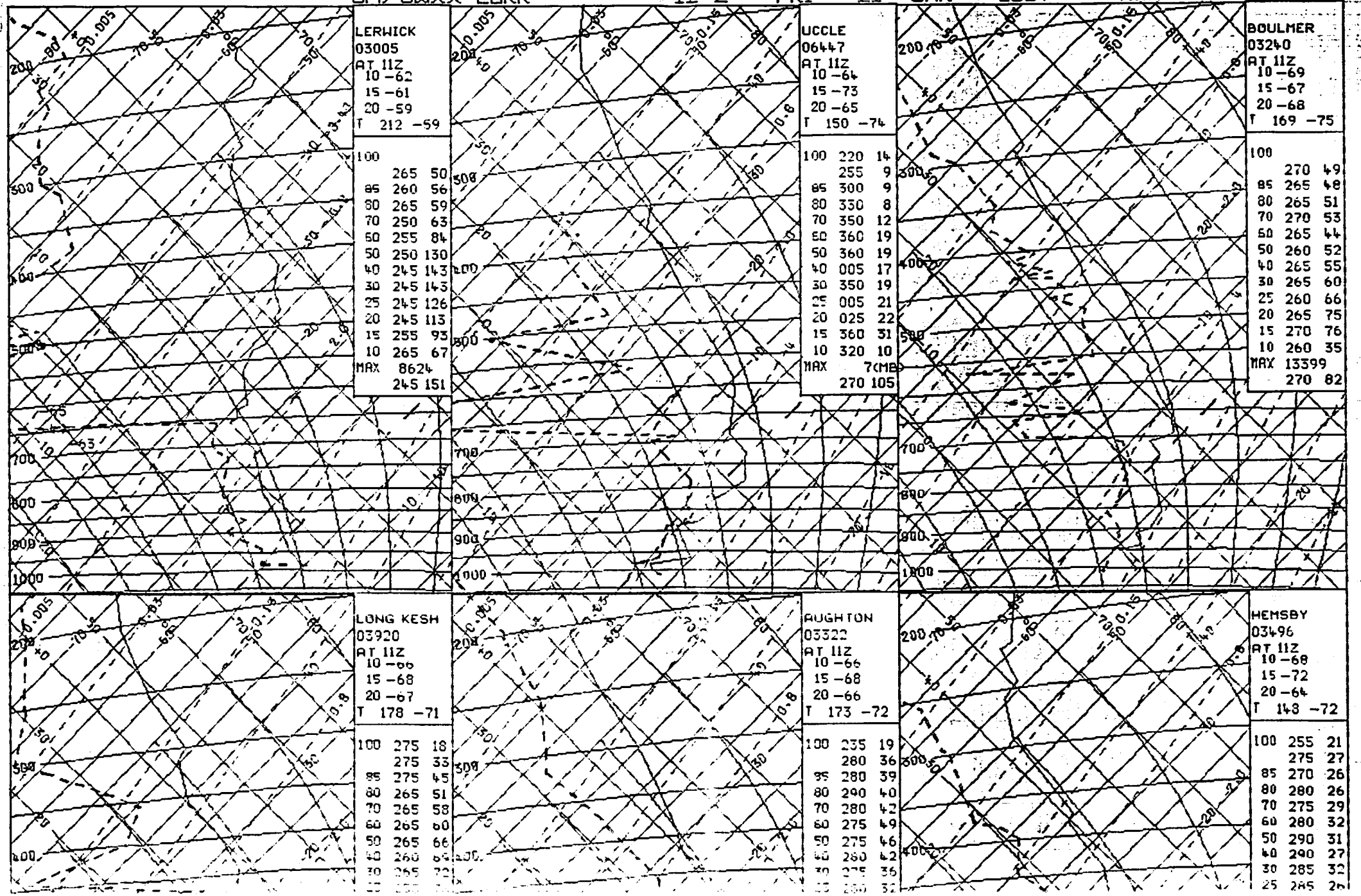

SMUK-IE EGRR
21 JAN 1994 AT 12Z
NAUTICAL MILES
GEOSTROPHIC WIND SCALE IN KNOTS FOR ISOBARS AT 1MB INTERVALS
GRJ
PLAT
GACA
57.3N 23.6W

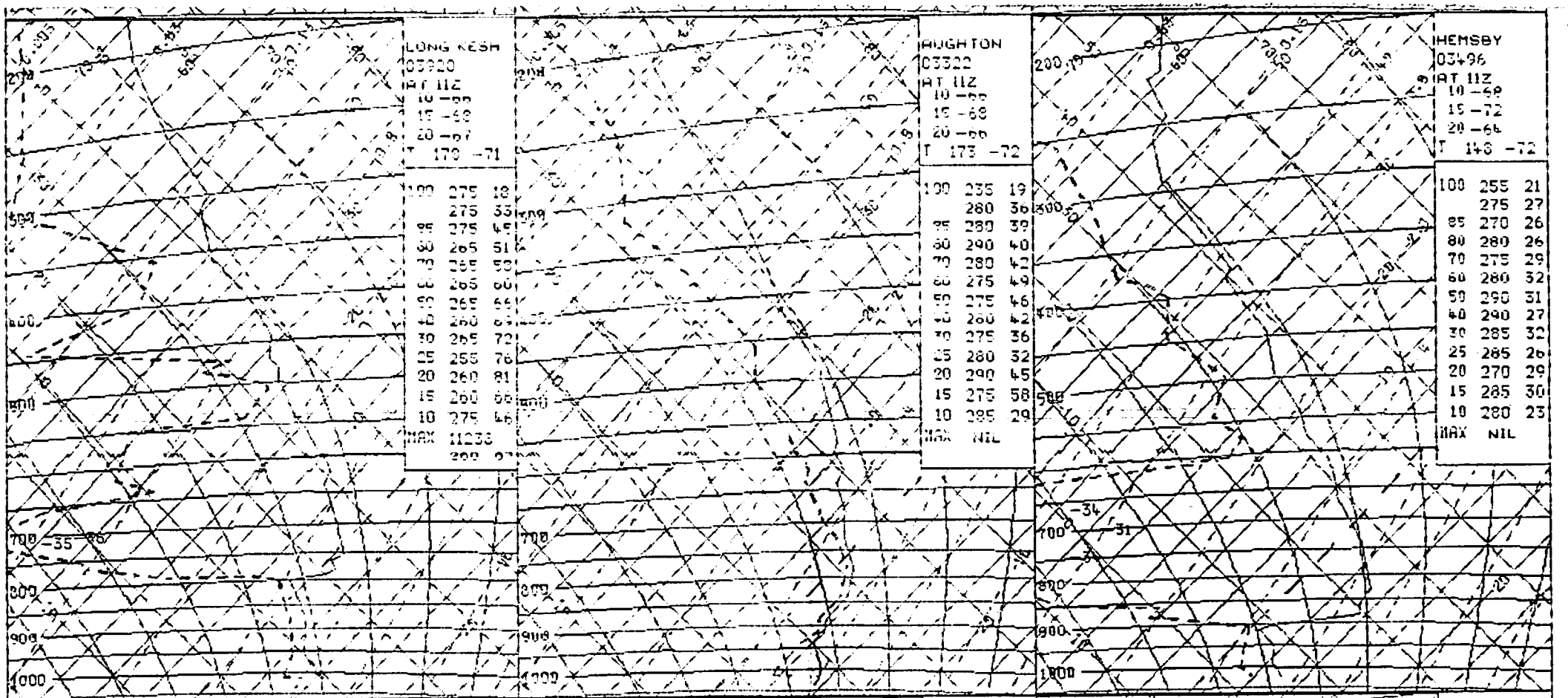

54
53
51
50
PIAT


SMEW EGRR
21 JAN 1994 AT 12Z
DATA CUT-OFF TIMES 12.41


HIGH
1033
LOW
53.5N 08.5E
53.9N 08.7E
54.7N 10.0E
54.1N 12.0E
21 JAN 1994 AT 12Z
GEOSTROPHIC WIND SCALE
GEOSTROPHIC WIND SCALE IN KNOTS FOR
LOGGING AT 4 MB INTERVALS
KT 100 50 30 20

UM/UWXX EGRR 12 Z FRI 21 JAN 1994 RUN 1




LONG KESH
03920
AT 11Z
10 -68
15 -68
20 -67
T 170 -71
100 275 18
275 33
95 275 45
90 265 51
80 265 58
70 265 60
60 265 64
50 260 69
40 260 69
30 265 72
25 255 76
20 260 81
15 260 66
10 275 46
MAX 11233
AUGHTON
03322
AT 11Z
10 -68
15 -68
20 -66
T 173 -72
100 255 19
280 36
95 280 39
90 290 40
80 280 42
70 275 49
60 275 46
50 280 42
40 275 36
30 280 32
25 290 45
20 275 58
15 285 29
10
MAX NIL
HEMSBY
03496
AT 11Z
10 -69
15 -72
20 -66
T 148 -72
100 255 21
275 27
85 270 26
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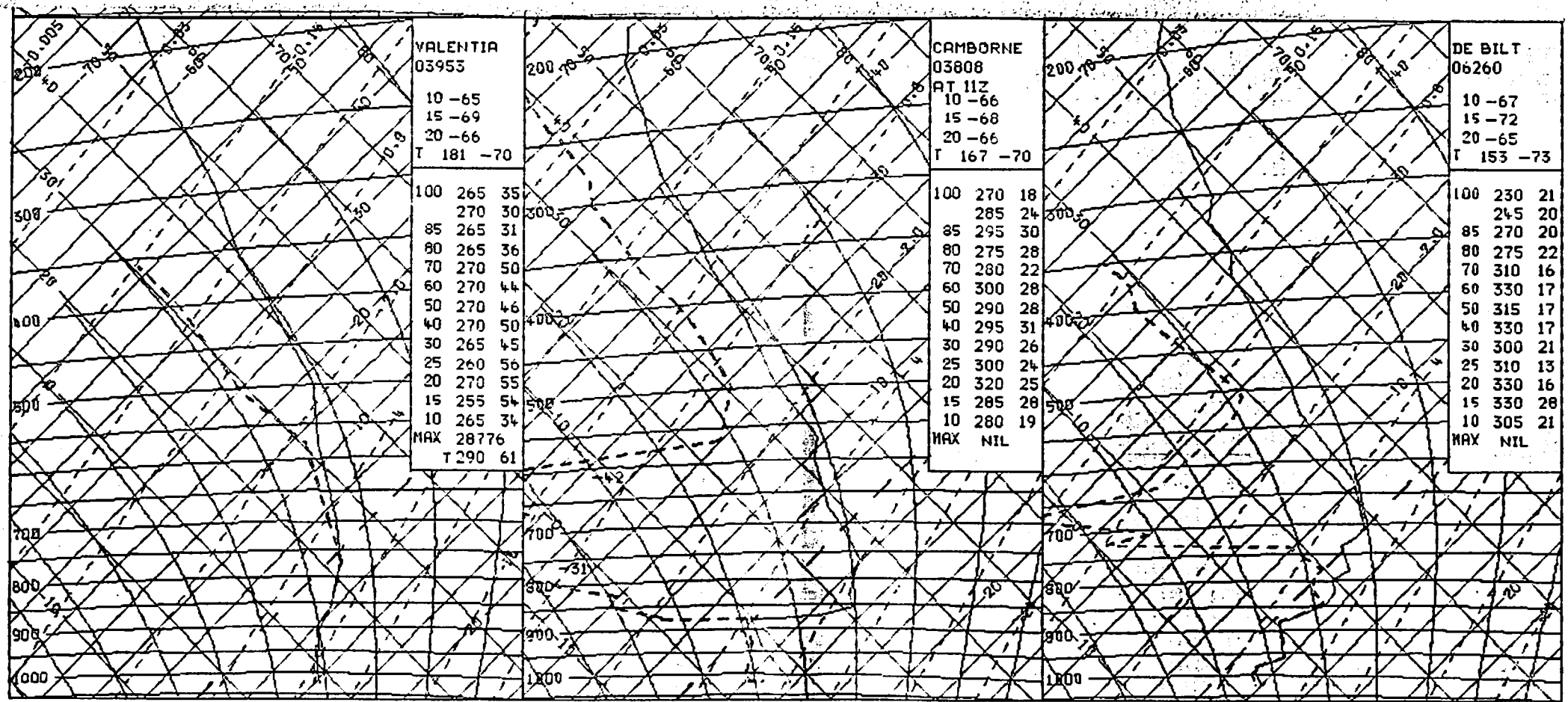
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